THE PRACTICE OF STRATEGY

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DECLARATION

I hereby declare that this thesis was composed by myself and that the work is my own.

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ABSTRACT

In moments of reflection, both management teachers and practitioners acknowledge that choices are constrained by the availability of information, the ability to make sense of it, and the ability to communicate it. This study of strategy practice in organisations shows that choice is more than constrained; it is also socially constructed.

Everyday strategy is guided by 'taken for granted' practices rooted in social reality; an objective reality that is the product of subjective processes. At the same time, practitioners construct their social reality through practice; through, for example, shared meaning, heritage, the patterning of experiences. These observations are based on a phenomenological study of strategy and innovation in three unrelated organisations all of whom regard innovation as essential for their survival: a bank, a telecommunications service provider, and a business school.

The relationship between strategy practice and social reality is inclusive, one reflecting and at the same time shaping the other unceasingly. However the indeterminacy of the shaping process suggests that there is more than rule governed behaviour involved. Through innovation practitioners both reinforce and elaborate their social reality. In interpreting and expressing their social reality through practice, practitioners are necessarily creative; they are interpreting and expressing their social reality through the application of their capabilities.

There are a limited number of social realities that practitioners might create; social reality is not infinitely variable nor universally homogeneous. The ways that practitioners work together and the degree of social control they experience gives rise to four possible archetypical social realities or alternative worlds. Those aspects of reality that practitioners of each socially constructed world take for granted varies qualitatively across an inexhaustive list of factors, including attitudes to rationality and uncertainty, and how to compete and co-operate.

These findings suggest that attempts to manipulate social reality fail because organisational designers do not appreciate the extent to which practice is socially constructed. Practitioners may have more influence on their organisation's innovative performance through a better understanding of how they construct social reality, and how strategic choice is embedded in that reality.

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Thesis introduction

The motivation for pursuing this thesis emerged very gradually during the late 1980s and early 1990s, and can be traced to two influences and a long standing desire. One influence was my experience as a practitioner engaged in new business development, conceiving of new products and applications. This work was exciting, perhaps because it carried a lot of risk; but also as a disciple of Thatcher's enterprise culture of the 1980s I found the fiercely competitive process very stimulating. Over time though attempts to manage the process of creating new business opportunities seemed to be effective only at the margins. I began to wonder why that was so. I looked to the popular management literature for help but that seemed wanting in one way or another. The second influence came from my experience as a tutor for the Open Business School. In this role I engaged in discussion with practitioners from many different businesses who also seemed to be trying to make sense of their own situations. Here too the literature while valuable seemed to raise as many questions as it tried to answer. These two influences fuelled a long standing desire to make some kind of literary contribution; to write a book that some section of society might find useful.

One common theme of these influences involve questions about how practitioners make sense of their role within their organisation's strategy; how they interpret opportunities and threats to the continued prosperity of their employing organisations; and why, despite formal strategy making and meticulous planning, the future almost always turns out differently to that intended. These issues seem to revolve around a belief shared by competing firms and their customers that innovation is a necessary route to prosperity.

The first section of this chapter, 'personal encounters', explores some of the issues that I have found to be problematic as a practitioner. 'The need for innovation' then establishes the widespread concern among organisations for ways of being more innovative, and also helps to locate the broad aims of this research. The last section outlines the chapters of the thesis.

1.1 Personal encounters

There are a few concerns that shaped my early reading and the design of this research. First, I have found that *'strategy' means different things to different people.* It varies both in terms of an abstract meaning and relative to an individual's role within the organisation. I have seen this differentiation manifest itself as people talking past each other, or groups seem to agree on strategy formulation yet implement those agreements in contradictory or incompatible ways. The strategy concept is not the only thing on which practitioners believe they agree, while their actions tell a different story. Despite the existence of mission statements and the like, interest groups within and outwith the organisation have different and often conflicting interpretations of what the organisation's expertise is, what its current competitive position is, and in which markets and with what technologies it could or should be competing in the future. The extent and nature of such diversity is seldom explored as part of the formal strategy process, yet that diversity has significant implications for internal coherence amongst other things.

My second concern, related to the first, is that *contradiction, conflict and compromise seems prevalent within formal strategy.* Organisational performance is measured in terms of both continual profit growth and the creation of new business. My experience is that if substantial initiatives are set up within an established business, that is a recipe for death of the initiative. If the initiative is set up as a separate entity the risks to its survival do not diminish, rather they change in nature. From the perspective of those directly managing the initiative, their relationship with the larger organisation is one where strategy making and outcomes tend toward unstable coalitions between different interest groups within the overall organisation, and at times unpredictable changes of direction. As a member of embryonic initiatives I have felt a constant tension in relations with the main organisation. These usually revolve around paradoxes; the need to generate cash and the need for investment; maintaining the status quo and organisational change; predictability and flexibility; operational efficiency and pursuing new technologies and markets; exploiting existing internal know-how and pursuing new know-how through links with external bodies.

Third, *formal strategy seems insensitive to heterogeneity, spontaneity and intuitive judgement, and yet decision outcomes often seem more akin to witchcraft than its public image of logic and calculus.* The practice of strategy appears as a collection of more or less coherent guiding principles based on institutionalised beliefs, spurious cause-effect relationships, articulated through 'rules of thumb', and justified through post hoc rationalisation. Decisions about resource allocation, such as R&D spend, are often justified as 'normal for the industry', or 'we've always done it this way'. Logical arguments are then marshalled to bolster such decisions. The traditional functional specialisation (Marketing, Sales, R&D, Production, etc.) is itself an institutionalised 'rule of thumb' resulting in strategic choices being forced to conform accordingly.

Fourth, *almost all knowledge about 'how to compete in this business' is regarded as objective knowledge,* - whether this is current and required expertise, market requirements, competitive position and sources of competitive advantage. As practitioners we often debate the accuracy of such knowledge, but rarely question whether we are asking the right questions, or whether there are fundamentally different ways of making sense of the world. Further, practitioners often know what to do in any given situation but, beyond saying that it is 'commonsense', cannot say how or why they know what is the appropriate action to take. Polanyi (1966) in his study of knowledge accumulation in the natural sciences refers to this phenomenon as 'knowing more than we can tell' or 'tacit knowledge'. The existence and creation of tacit knowledge seems to have poorly understood links with formal strategy and management control systems. For example, practitioners may formally aim to create knowledge, such as that described by patents, yet I doubt whether they really understand the extent and nature of such knowledge as it is created, nor the manner in which it is perceived and organised collectively.

Fifth, my sense is that *strategy involves spending a great deal of time negotiating and trading support with colleagues informally.* Strategy decisions and knowledge acquisition of all sorts seem to owe more to informal social and political relations, and membership of small, sometimes transitory key groups, than to any amount of formal planning. The way that

strategy unfolds seems driven by one interest group using politics, knowledge and links with informal networks more effectively than other interest groups. Formal plans, forecasts, projections, and espoused strategy all seem to be post hoc rationalisations of backstage activity. In my experience, formal strategy has little chance of success if it is not underpinned by such backstage activity. Formal strategy is acknowledged yet seem only partially relevant in informing actual outcomes.

The concerns listed here are not intended to suggest the existence of widespread conflict and incompetence. Rather, it is to stress that organisations assume the reliability of formal strategy, freedom of strategic choice, and the veracity of their own understanding. Further, there seems to be great resistance to internal heterogeneity and change, and a tendency to regard change as necessarily an upheaval.

More generally, strategy seems to be perceived as bringing order, implying a particular pattern of work; it suggests restriction. From all possible technologies a particular selection has been made, and from all possible market relations a particular set has developed. Innovation, on the other hand, implies disorder, and a challenge to the existing order. At the same time it is the material for creating new patterns. It implies a wider if not infinite range of technologies and market relations to choose from. How can the apparent order of strategy and the disorder of innovation be reconciled? Taken together these concerns and ideas have implications for formal strategy, our understanding of it, our assumptions about its effectiveness, and management teaching on the subject.

1.2 The need for innovation

The importance of innovation is widely recognised. The British government through the Department of Trade and Industry (DTI) stresses its importance, defining it as:

> The commercial application of knowledge or techniques in new ways or for new purposes [and] is important in every business. It is not necessarily about thinking up new things in the first place but about exploiting opportunities profitably and ahead of competitors ('Innovation: Technology and Change', *The Enterprise Initiative,* 2nd. ed., February 1992).

Popular journals and newspapers regularly carry articles and case histories of how companies' success depends on how they manage innovation. For example, Coats Viyella's ability to maintain a competitive position is seen as dependent on innovation in quality and design, and that more generally "western firms will hold on to the upper end of the market only if they continue to innovate" ('Concentrating the mind', *The Economist,* February 18, 1995: 81).

There are many government sponsored initiatives to bring together industry and the research community in the hunt for more effective ways of boosting the nation's wealth generating capabilities. For example, the Economic and Social Research Council (ESRC) 'Innovation Agenda' (1993), and the Innovation Advisory Board 'Action Programme' (1990). Some of these programmes and projects produce guides and checklists for practitioners, such as the National Economic Development Office (NEDO) Innovation Management Tool kit, published jointly by HMSO and Barclays Bank in 1990. More recently (1996) the ESRC published 'Innovation: A framework for innovation management training'. This material is being provided free of charge to colleges and universities that provide courses in innovation.

These initiatives tell practitioners how to make their businesses more competitive by being more innovative. In addition to training firms may draw directly on experts and funds. For example, The DTI's Enterprise Initiative offers both expert help to firms and capital grants for supporting innovation. The government is also urging firms to develop 'strategic' skills in business planning, management information systems, as well as enhancing their competitive skills in the traditional areas of R&D, manufacturing, and marketing.

This research is based on the assertion that firms must compete through innovation which means that corporate leaders and their teams are continually exercised in managing strategic change, making non-routine decisions, as they try to improve competitive performance and build competitive advantage by bringing together technological possibilities and commercial opportunities.

The aim of this research is to provide practitioners with additional insight to the intractable difficulties of managing innovations, where 'innovation' describes the process of profitably anticipating and interpreting the needs of selection environments through technological possibilities. Technological possibilities here refer to new ways of configuring technical knowledge as artefacts and work processes. The selection environment refers to markets, regulators, competitors, collaborators, and other stakeholder groups. In general innovative technological configurations (that is novel products and processes) are successful if people are willing to pay for them, but what does 'anticipating and interpreting' opportunities involve? This is a question about the nature of strategy practice, of how these processes shape strategic choice, and the scope for innovation therein. A better understanding of practice will hopefully provide a frame of reference that practitioners find useful in evaluating their own situation.

The approach adopted here to gain the desired insight to corporate innovation is not to trace the progress of an individual innovation from initial idea through to a marketable product. Instead the focus is on how the organisation's actors, with partial and differentiated knowledge, make and execute strategy faced with the uncertainty and diversity surrounding technological possibilities and selection environments.

1.3 Outline of thesis

Drawing on the concerns above I formulated a number of research questions. All of these questions are concerned with making sense of the practice of strategy, with particular emphases being reflected in the individual questions:

1. How do the differentiated perceptions of interest groups shape the practice of managing innovation as a strategic process? How do networks and contacts, both formal and informal, shape perceptions?

2. What are the barriers to achieving both innovation and efficiency, conformity and originality? Is the simultaneous achievement of these positions a contradiction?

3. What heuristics exist (eg., previous decisions, existing formal decision rules and informal practices), and how do these shape (and get shaped by) the strategy process?

4. What is the nature and role of tacit knowledge in the strategy process?

5. What is the relationship between the formal and informal strategy process?

These questions were a starting point for the subsequent literature review and field work, but as will become clear to the reader my immersion in the research lead to modified research questions. My interests and interpretation of field work evidence developed in unanticipated ways, resulting in a change in the research questions addressed in chapters 7 to 10:

1. To what extent is the practice of strategy socially constructed? That is, is strategy an exercise in objectivity and detached rationality, or an exercise in subjectivity and imagination?

2. What is the relationship between the practice of strategy and social reality? An organisation's social reality, usually referred to as its culture, is typically seen as an element that impacts on organisational life, as a backdrop, and as something that can be brought under the yoke of strategy. To what extent is social reality under the control of the strategist?

3. Are there discernible and viable alternative socially constructed realities? Accepting that reality is socially constructed does not mean that the possible constructions are infinitely variable, that anything is possible. Is there scope for characterising alternative social constructions?

The second group of questions differ from the original in terms of the assumptions and theoretical framework employed. The original questions assumed a largely positivist conception of strategy while the new questions were addressed using an interpretive framework. The thesis is organised so as to show the reader both the content of the final argument made in chapters 7 to 10, and the process of evolution in thinking that led to that final argument. Chapter 2 represents my initial understanding of the issues relevant to the original research questions. Chapters 7 to 10 represents a shift in my assessment of the

important issues underpinning the practice of strategy; a shift brought about through engaging in field work and its analysis.

This thesis is divided into three parts. Part I contains a literature review (chapter 2), and describes the research design and method adopted (chapter 3). The literature review was conducted early on in the study, to establish a platform of knowledge to guide the preparation of research questions. This review explores the diverse perspectives on the meaning of strategy and strategic management, the role of knowledge creation in innovation, and the extent to which innovation is part of the strategy process. Chapter 3 describes the research design and method used for investigating the diverse perspectives on the meaning of strategy and the role of innovation. A central feature of the research design is case studies of three organisations. This was done to provide material for an evaluation of both similarities and differences across organisations in diverse competitive sectors. This chapter includes some epistemological considerations. In particular it is argued that a phenomenological rather than positivist research design is more appropriate for studying differentiated meanings of strategy, and for making sense of the different ways that practitioners see the scope for innovation. A personal reflection on the research process is included as a way of providing further insight to how practical methodological challenges and the analytical process were managed.

Part II reports the three case histories (chapters 4 to 6): a bank, a telecommunications manufacturer and service provider, and a business school. These case histories have been written from the interviews described in the 'research design and method' chapter. Each case history documents the organisation's history and size, its work organisation arrangements and strategic aims, and interviewees' accounts of their strategy processes and innovation record. The three accounts are not presented here in terms of any particular analytical framework, this being the focus of Part III, yet they give a sense of the variety of ways that innovation is managed within the practice of strategy.

Part III contains four chapters of analysis (chapters 7 to 10), and the thesis conclusions (chapter 11). Chapter 7 reviews the literature on social reality, a concept that underlines the

whole analysis of the three cases. This review is in Part III rather than Part I so as to show the process of development of my thinking: the notion of social reality became significant in the course of the field work, not before. Chapter 8 draws on the case histories to show that strategy practice is a process where practitioners construct their social reality, a reality that at the same time shapes practice. The findings presented here are in contrast with the largely rationalistic perspective of strategy that underpins the earlier literature review of chapter 2. Chapter 9 explores the role of technological knowledge and capabilities in constructing practitioners' social reality. Links are also made here between these findings and ideas reviewed in chapter 2. Chapter 10 suggests that each of the three organisations studied can be characterised as one of a limited number of possible social realities, and a framework for comparing social realities is discussed.

The concluding chapter 11 draws together the main research findings, reflecting the thrust of each analytical chapter, implications for practice, and possible further research. The discussion takes in the 'personal encounters' discussed above, argue that practitioners need to be more self-reflexive about their knowledge claims, strategic judgements and practice, and the issues they should consider in the process. The chapter reflect on the nature of strategy practice, its relationship with a socially constructed reality, and the difficulty of designing organisations. The conclusions also highlight that in managing innovation practitioners' shared reality shapes choice but at the same time provides the freedom for innovative practice and outcomes.

PART I

Literature Review and Research Method

2

Corporate strategy and innovation: a literature review

2.1 INTRODUCTION

Traditionally for a thesis this chapter would review the whole of the relevant field, as a precursor to gathering and analysing empirical evidence in light of the research questions. This thesis breaks with that tradition in order to show the development of both the substantive argument and the unfolding of the research process. To that end this chapter surveys the strategy and innovation literatures that seemed relevant to the initial research questions. In this sense it is a partial review of the nature of strategy. In the course of the research there was a paradigmatic shift in my understanding of the nature of strategy. Some literature that seemed irrelevant at the time of writing this review became central through engagement with the fieldwork. This material is introduced and developed in the analytical chapters 7 to 10. It is located there to reflect an intellectual development that came about through writing chapter 2, collecting and making sense of field work (chs. 4, 5, 6), and continued reading during and after the field work.

We may view organisational strategy as the context or social soup from which innovation takes shape. This soup is a cocktail of social, political, cognitive, cultural influences and perspectives. These ingredients are structured by practitioners' experiences, accumulated knowledge, and capabilities. At any time the firm's strategy is a source of obsolete, emerging, and currently dominant capabilities, as well as many novel product, service, and process ideas. Most of these ideas are in continual competition with each other for financial resources, and political interpretation and support.

This chapter, divided into six main sections, reviews both theoretical ideas and empirical work on the nature of strategy, and the scope for innovation therein. In this chapter strategy is presented as the framework for innovation. As a starting point section 2 looks for a definition

of strategy in terms of 'ends and means' and finds both agreement and disagreement in the literature. Section 3, 'metaphors of strategic management', then examines three models of how strategy is managed: whether strategy reflects total managerial control, or is a chaotic process, or is socially shaped. Total managerial control or 'determinate' strategy, may take two forms: either the synoptic or grand plan approach, or a much more incremental process where practitioners, still in full control of their relationship with their competitive environment, continually adapt to that environment through learning what works.

The second model, strategy as a managed and chaotic process, highlights a number of important issues not accommodated by the first two concepts of strategy. In particular the managed chaos model helps to surface the difficulty of separating social values and means. This model also acknowledges that there are limits to the amount of information and knowledge that individuals may know and groups may share. The third model of strategy suggests that an organisation's members see their competitive world in a particular way, and that corporate leaders may seek to manage strategy by manipulating the organisation's symbols, including the use of language, awards, and sanctions. Section four complements the preceding discussion on the nature of strategy by considering the extent to which strategic choice is governed by the external environment or is in the hands of the organisation's leaders.

While the nature of innovation remains largely implicit in the previous exploration of the strategy concept, the next two sections bring innovation to the fore. Section 5 explores the relationship between innovation and strategy from five positions. First, 'the innovation in strategy' considers whether innovation is a means to fulfilling strategy, under what circumstances innovative activity is regarded as strategic, and the role of learning in making strategic and non-strategic distinctions. Second, 'Innovation studies' acknowledges a number of debates: whether innovation should be credited to the lone hero, the team, or the environment; to what degree does 'demand pull' or 'technology push' provide adequate accounts of the innovation process; and the insight to innovation offered by the evolutionary economics metaphor. A third position considers how successful initiatives often emerge

despite formal and possibly contrary strategic intentions. The fourth aspect 'the innovation in strategy' is the extent to which firms must continually innovate to maintain competitive performance over the short term, and build sustainable competitive advantage over the long term.

Understanding how knowledge is created and exploited is critical to making sense of innovation, and this is the focus of section 6. Explored here is the notion that knowledge evolves and accumulates as a hierarchy of patterns, with 'design configurations' subsumed under 'technological regimes' (Metcalfe and Gibbons, 1989), and evidence is introduced that shows technological knowledge more than product knowledge is the critical source of competitive advantage. The 'sociotechnical system' is introduced to show the interdependence between the firm and its competitive environment. Also discussed is the interaction between the firm's accumulating knowledge, its work organisation arrangements, and the organisation membership's shared view of the world. An assessment of the nature of this interaction is important since it contributes to the shaping of strategy. Finally, this section argues that innovation is driven as much by environmental variety, including heterogeneity among competing firms, as by individual entrepreneurial activity.

2.2 DEFINING STRATEGY

The word 'strategy' is used rather loosely and ambiguously by practitioners.[1] Personal experience and anecdotal evidence suggests that most practitioners and management teaching assume the meaning of strategy to be common and therefore no need to define the obvious. Chaffee, in reviewing the literature on strategy found that "no controversy surrounds the question of its existence; no debate has arisen regarding the nature of its anchoring concept"(1985: 89).

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1 Practitioner' here describes a wide range of professional individuals within the firm rather than a reference to any particular function or position.

2.2.1 Ends and means

Perhaps the most common interpretation of strategy is in terms of means and ends. For some strategy describes organisational ends only, and concerns what the organisation's leaders want the organisation to be, its basic purpose. Strategy as 'ends' guide choices about which products, services, markets, the allocation of resources and the identification of appropriate capabilities. How the organisation achieves its basic purpose is an operational issue (Moore, 1992: 82).

Others regard strategy as the means while objectives describe the ends. They argue that clearly defined objectives guide the firm into the future, rather than strategy. In this case the relationship between strategy and objective is such that strategy making is iterative, trying to match achievable objectives with realistic strategies. This might be seen for example when a particular strategy fails to deliver against the objective, because strategy or objective or both are not possible with the given resources, or environmental conditions have become unfavourable (Moore, 1992: 21).

Within this framework some recognise that managers are operating with limited knowledge of their competitive situation. Ansoff (1965) for example regards strategy as a 'decision rule' or rule for making decisions under conditions of partial ignorance.

Still others see strategy as both means and ends (Chandler 1962; Andrews, 1987). Chandler for example defines strategy as:

> the determination of the basic long-term goals and objectives of an enterprise, and the adoption of courses of action and the allocation of resources necessary for carrying out these goals *(1962: 13).*

He was seeking to understand how companies in the United States managed the complex situation of their own growth within the context of an expanding post-war US economy, with a particular focus on innovations in organisational structure. Furthermore, his findings, that strategy determines structure as much as existing structure influences strategy, suggest that an organisation's growth may be comprehensively analysed in terms of these two axes.

Andrews, like Chandler before, intends strategy to encompass both objective setting and strategy formulation. He believes that goals should not be seen as separate from those policies designed to attain them and sees corporate strategy as a

> pattern of decisions in a company that determines and reveals its objectives, purposes, or goals, and defines the range of businesses the company is to pursue, the kind of economic and human organisation it is or intends to be, and the nature of the economic and non-economic contribution it intends to make to its shareholders, employees, customers, and communities *(1987: 18).*

In this way according to Andrews, corporate strategy is the outcome of strategic management and it is the degree of internal consistency and coherence of the firm's strategic decisions which account for the strength of its competitive position. Similarly, Quinn offers strategy as the "pattern or plan that integrates an organisation's major goals, policies, and action sequences into a cohesive whole" (1980: 7).

There is some acknowledgement among these writers that managers do not and cannot have perfect knowledge of their competitive situation, and are therefore uncertain about their competitive situation. Nevertheless words like 'determines', 'intends' and phrases like 'integrates into a cohesive whole' suggest it to be an entirely rational process. In contrast to the notion of strategy as a rational heuristic, others have explored interpretations that fall outside of the 'means-ends' debate.

2.2.2 Differentiated meaning

Mintzberg's contribution (Quinn *et. al.,* 1988: 14-18) is perhaps representative of the variety and ambiguity of meaning attributed to strategy in the minds of practising managers. From his perspective a single definition is not useful and does not reflect the variety of ways in which it is used by practitioners, researchers and academics. He therefore offers a selection, regarding all as valid depending on the context of application. Strategy may be any one or a combination of: plan, pattern, position, perspective, or ploy.

These different descriptions complement each other, according to Mintzberg, such that *plan* suggests intention, *pattern* is about consistency of actual behaviour, *position* describes the

firm's location in a competitive context, and *perspective* underlines the sense that an organisation's members share a common view of the world, such as 'the IBM way'. He acknowledges that in some ways these alternatives compete with each other, but sees a greater benefit in their complementarity as enriching our understanding of strategic management.

Others regard the organisational culture as the place where strategy is defined and performed. Van Cauwenberg and Cool define strategy as "calculated behaviour in non-programmed situations", and is distinct from "administration" which is the management of routine (1982: 246). Strategy is an activity that all levels of management take part in, not just "top management" (1982: 261). For them non-routine situations describe organisational reality as a set of incoherent ideas and practices, and the task of "top management" is "motivating adequate strategic behaviour" (1982: 255).

Huff sees strategy as a contested area where disagreement goes beyond differentiated interests and multiple points of view. This disagreement "is not just analytic. It has the strong symbolic content and rich subjective meanings which rise out of different world views and experience" (1983: 167). Her view is based on a study of rhetorical devices used by the Dean of a graduate school to argue and persuade his colleagues and staff that particular actions were necessary to improve the position of the school.

Weick and Daft (1983) focuses on strategy as the expression of some form of unwritten social contract between different subgroups holding different perceptions about their organisation's and the subgroup's relationship with the environment. For them strategy is a shared set of beliefs that guide action and help the membership to make sense of both the internal and external environment.

Ideas such as these begin to introduce the possibility that there may be complexity and disorder not just in the environment, but also within the organisation. There is a suggestion that strategy is much more of a messy processual affair rather than logical and instrumental.

These ideas represent a challenge to the means-ends debate where there is a presumption of systematic and rational behaviour among the firm's managers.

Clearly there is no general consensus or agreed set of assumptions underpinning the perception of strategy, or by implication its practice. Hambrick (1983) offers two reasons for this: that strategy is multi-dimensional and that it is contextual, varying according to the industry. Perhaps more importantly, the lack of consensus and variety of definitions also reflect various and possibly competing assumptions about the nature of strategy.

Although there is such a variety of meaning associated with the strategy concept, Chaffee (1985: 89) suggests that there is general agreement in some areas. First, the strategy concept can be divided into two interdependent halves; the content (intent, actions), and the process by which the content is thought through and acted upon. Second, that strategy is the process through which practitioners deal with a changing environment. Indeed a changing environment routinely produces many unanticipated situations, forcing practitioners to rethink their strategy. This leads to the third area of agreement, that strategy making remains unstructured and non routine.

Chaffee (1985) also notes that there seems to be general agreement on the existence of multiple levels of strategy: corporate (what business to be in), business (how to compete in this business), operational (how should R&D, marketing, information systems, etc. contribute to the business strategy). Lastly, she suggests that writers,

> concur that the making of strategy involves conceptual as well as analytical exercises. Some authors stress the analytical dimension more than others, but most affirm that the heart of strategy making is the conceptual work done by leaders of the organization *(1985: 90).*

There is no doubt among researchers and practitioners alike that strategy is an activity of fundamental importance to the well-being of the organisation. There is however room to question the implication that strategy making is necessarily a top down process, especially where access to, and control of knowledge and information, is regarded as a foundation for effective strategy making. For example organisational 'gatekeepers' such as sales people

clearly have considerable scope for filtering information into and out of their employing organisation. Fincham *et. al.* (1994) in their study of the relationship between information technology (IT) expertise and innovation in the financial services sector, found that IT experts have considerable scope for shaping what senior executives know and therefore base their decisions on. Staff of the Open Business School share a belief in open access to decision making; to them top down strategy is anathema (ch. 6).

At its simplest strategy making may be viewed either as decisions made in advance of action or a complex pattern or stream of decisions where intended goals and means of achieving them are indistinguishable. The next section explores these issues by examining a number of metaphors of strategy making.

2.3 METAPHORS OF STRATEGIC MANAGEMENT

2.3.1 Introduction

Many writers have developed categories that characterise the differences and similarities they see in these different views of the strategy process. The preceding discussion suggest three categories that may be helpful in exploring the role of innovation in strategy. In the first case strategy may be seen as a process that is determinate, with managers in full control of their destiny. In the second strategy is likened to managed chaos, with managers having little control of events in their environment. In the third strategy is a social construction, where the language of control is inappropriate, because organisations and their environments shape each other. These alternative processes may offer scope as contexts for examining the innovation process.

There are other ways of categorising strategy. For example Whittington (1993: 3) suggests a classification based on two dimensions: whether the process is deliberate or emergent, and whether outcomes are "pluralistic" or "profit maximizing". His framework produces four types of strategy: classical, evolutionary, processual, and systemic. The first type approximates to strategy as 'determinate', involving deliberate processes seeking to

maximise outcomes. However, strategy as determinate seems more useful because it allows further division into strategy as the 'grand plan' (Fredrickson's 1983 synoptic approach), and strategy as a rational but incremental approach as in Quinn's (1980) logical incrementalism.

The second type of strategy, 'evolutionary', is also about maximising outcomes, but more through emergent than deliberate processes. Whittington's third type, 'processual' strategy, like 'evolutionary' strategy, is emergent. However, its outcomes are pluralistic rather than maximizing, for example allowing for both socially responsible behaviour and a return that shareholders find acceptable. Evolutionary and processual metaphors and strategy as 'managed chaos' acknowledge the emergent more than deliberate quality of strategy. However, strategy as 'managed chaos' suggests that maximising need not be economic, it could be directed to some social objective. Further, whatever the 'big idea', realised outcomes tend to be pluralistic, reflecting the role of social values, and the largely disjointed and reactive behaviour by the organisation's practitioners. Lindblom (1959) describes such a process as 'muddling through', based on his study of a USA public services department. Whittington's fourth type of strategy is 'systemic', and results from deliberate processes and pluralistic outcomes. Whittington suggests that strategic practices reflect a wider social system, such as a national culture; an implicit acknowledgement that strategic practices are socially shaped.

While Whittington's typology has merit, the preceding observations suggest various limitations. It is possible therefore to think in terms of three generally distinct theoretical constructs of strategy making. In the first metaphor strategy as 'determinate' is systematic, purposive, and analytical. The process may be synoptic or incremental and involving learning; either way there seems to be unbounded objectivity as practitioners pursue economic goals. The second metaphor of 'managed chaos' conceives of an iterative process shaped by social values; it is a process that is reactive, negotiated, satisficing, stumbling forward. The third metaphor of strategy offers a very different dimension. Rather than conceiving of either a proactive or reactive process as in the first two, the social construction frame suggests that strategy making is rooted in the organisation's culture, evoking notions

of organisational symbolism, symbolic mediation of environmental signals, and interpretive frames shared among the organisation's membership.

2.3.2 Strategy as determinate

Strategy as determinate may be stylised as two types, although features of both types are likely to be found in many, if not most, organisations. Distinguishing between 'synoptic strategy' and 'logical incrementalism' is useful because it helps to highlight differences and commonalities. The two types share the notion that strategic management involves managing three elements: first analysis, then assessing strategic choices, followed by implementation. The process is rational, objective, and choice is separable from analysis and implementation. They also differ in important ways, as the following examination shows.

Synoptic strategy

The traditional description of strategy follows a machine or military metaphor, presuming firstly that managing a well run enterprise is like conducting a military campaign, manoeuvring resources (finances, human knowledge, capital equipment), with the aim of gaining and maintaining competitive advantage. A second presumption is that those responsible for the process monitor resource levels and environmental forces, constantly manipulating organisational resources appropriately. The third presumption is that the process is rational and under control, in the sense that the organisation's members follow a formal plan.

This perspective of strategic management is seen as a systematic and continuous process, consisting of a sequence of activities, starting with the setting of financial objective and external/internal analysis, followed by strategy formulation, then implementation, review then cycling back to the beginning. There is an assumption that environmental change is predictable, and that managers should concern themselves with continuous improvements in efficiency, tacking their course in line with shifts in market demand.

This rational, comprehensive and linear approach has widespread support (Andrews, 1987; Ansoff, 1965; Argenti, 1980), yet it is difficult to see how in practice such an approach can deal effectively with managing the complexity and dynamics of change since it is based on a strongly analytical perspective, taking little account of the "conceptual work" (Chaffee, 1985: 90) of the organisation's practitioners at all levels, involving intuitive leaps and judgements in the face of incomplete knowledge. Indeed Simon (1957) in his study of administrative processes coined the term 'bounded rationality' in recognition that practitioners individually have cognitive limits, and collectively have limits in the way they share and communicate information. The approach is not tolerant of ambiguity, assumes that practitioners have a clear understanding of threats and opportunities, capabilities, and can reach agreement of all critical factors in a systematic way.

The synoptic construct seems to accord with neo-classical economic theories of the firm, where corporate leaders motivated by economic objectives, specifically profit maximisation, systematically and analytically assess market demand and adjust supply as necessary. Knowledge has no proprietary or tacit competitive value since all firms draw from a commonly available pool. These theories, developed during the 18th century when almost all firms were owner-managed, offering one or a narrow range of related products, tended to ignore entrepreneurial behaviour in wealth creation. Indeed, observations of discrepancies between the classical economic theory of the firm and present day realities have encouraged a re-evaluation of the 'rational-economic man' perspective, as noted by Coombs and Richards in their study of the relationship between firms' strategies and their technology strategies:

> the historical increase in the size of firms relative to markets, coupled with the separation of ownership and control of firms, has forced economists to take seriously the scope of managerial action and its motivations *(1991: 80)*.

The issue of managerial choice is discussed below (2.4) as part of a broader debate about the scope for free choice.

Logical incrementalism

Another explanation of strategic management, based on a metaphor of adaptation and open systems theory, puts managers still very much in control of their destiny, pro-actively and continually seeking to make sense of and adapt their organisation to complex environmental forces.

In a study during the 1970s, involving about nine very large diversified companies, Quinn (1980) like Lindblom (1959) before him, found that strategy practice in well managed enterprises bore no relationship to the generally prescribed rational formal planning approach. Quinn describes his firms' management of strategy as "logical incrementalism". Strategies in these firms emerged through a consensus among their corporate leaders. The nature of the process was fragmented, evolutionary, and intuitive, where functional departments would actively seek to reduce discord between their own strategies and those of the whole organisation. Managers in 'well-run' firms pro-actively develop strategies and consciously pursue actions in managing the interface between the external environment and internal conditions.

According to Quinn the result of the iterative process was an integrated organisational strategy based on the incremental building of commitments, an ability to experiment and learn, and the successful management of organisational politics and psychology. There seems to be an implicit objectively rational programme able to resolve internal political conflict and differentiated values between managers. Quinn argues that the inherent delays of an iterative process is advantageous since it allows the accumulation of more and better information for decision making, and allows a consensus to develop. However while this may be true it also results in an organisation which is slow to respond to change and therefore has the increased risk of loosing the competitive race. His concept also ignores the possible existence and effects of the malady of 'groupthink' (Janis, 1972) within the enterprise; a situation where the organisation's leaders uncritically follow a flawed strategy. Similarly, Johnson (1989) in his exploration of organisational paradigms suggests that logical incrementalism could lead to

'strategic drift', where the organisation gradually drifts out of touch with environmental conditions.

There is support for the incremental metaphor. For example, Cyert and March sees the firm as "an *adaptively rational* system rather than an *omnisciently rational* system" (1992: 117). During the 1970s Mintzberg investigated how corporate leaders' intentions and plans over a number of decades compared with what actually happened. He found strategy to be "a pattern in a stream of decisions" (1978a: 935). Strategies may start as 'intended', but fail, becoming 'unrealized'. Equally, strategies may 'emerge' and become realized. Mintzberg and Waters (1989) later developed these ideas into a comprehensive classification of types of strategies, ranging from completely deliberate or planned to wholly emergent. Midway on this continuum is the 'umbrella' strategy, where corporate leaders set the boundaries or guidelines within which divisional or departmental strategies are allowed or encouraged to emerge through the efforts of other actors. They suggest that the notion of emergent strategy accommodates the role of 'strategic learning' or adaptation; that practitioners learn what works, often finding out what they are good at through reflection.

There are many historical examples where innovations may be accounted for in terms of Mintzberg and Waters (1989) classification. For example during the 1970s, Xerox Corp. was particularly active in generating innovative ideas for the then fledgling personal computer market, introducing the GUI (Graphical User Interface) and the mouse. These innovations were rejected by the Xerox corporate leaders because as emergent innovations they did not fit the then intended strategy and were therefore unrealised. Interestingly these particular innovations were picked up by other firms, leading to significant claims to sources of competitive advantage (Apple, Hewlett Packard) and long drawn out copyright claims and counter claims (Apple and Microsoft).

2.3.3 Managed chaos

In his study of how US public administrators actually make policy decisions Lindblom (1959) found that the rational or 'scientific' method was wholly inadequate for dealing with the complex problems which administrators encountered. He suggests that the rational-comprehensive method is appropriate only for small scale problem-solving where variables are few and unproblematic. He criticises the determinate or what he calls the 'root method' (always building an edifice from scratch) because it

> assumes intellectual capacities and sources of information that administrators simply do not posses, and is even more absurd as an approach to policy when the time and money that can be allocated to a policy problem is limited, as is always the case *(1959: 80).*

He describes what administrators actually do in dealing with complex policy questions as 'successive limited comparisons' or 'branch method' and offers it as a realistic alternative to the determinate prescription. His 'branch' metaphor describes a process of gradual additions or changes to the existing circumstances.

Lindblom identified four core dimensions of the decision making process which could be used to evaluate the relative merits of both the root and branch methods: the relationship between competing ends, and between ends and means; the scope for analysis; deciding what makes a good policy; and whether strategy progresses pragmatically or by design.

The tangle of social values, and inseparable means

Under the prescribed root approach, objectives are clearly identified, and followed by analysis of alternative policies or strategies. In other words ends and means are separated. In practice (branch method) there is often disagreement about objectives and their relative importance and in the absence of clear objectives administrators may apply their own, but will still have difficulty deciding how to rank competing and overlapping objectives. Decision making lacks consistency insofar as individuals may use their own value systems to guide their choice of decision and collectively these may either clash or be incoherent.

Additionally, individuals' values and sense of priorities vary over time and circumstances. The ends and means are locked together and attempts at separating them result in arbitrary distinctions and decisions.

While this may be the case in public sector management do private enterprise managers experience such difficulties? Stakeholders in large firms do have different objectives. Shareholders require dividend payments, corporate managers require funds for investment, customers want lower prices and better quality, and pressure groups want a variety of things. Marketing managers continually want new products and funding in order to grow sales in pursuit of market share, while R&D managers also want additional funds to support existing and new projects. Furthermore, managers of business units or profit centres must choose between the need to report profit growth and the need to re-invest some of that profit. If profit growth is poor over the short term managers may choose not to invest in order to show satisfactory financial results yet it may be that under-investment is a significant contributor to poor financial performance over the long term.

As in Lindblom's study, in private enterprise there is no clear separation of objectives. Objectives are often clearly stated but the degree to which they will in practice be compromised varies over time and circumstances as they compete both for priority and in terms of means that cannot be isolated. Corporate leaders cannot rank investment objectives over dividend payment objectives or vice versa, in all situations. It is not certain that firms should apply the same investment rules during economic recessions and growth periods. It depends on many factors. Particular preferences surface with the particular features of different circumstances, so that objectives need "adjustment at the margin" (Lindblom, 1959: 82).

Given the conflict between objectives of profit growth and re-investment managers are forced to choose directly between objectives that "offer different marginal combinations of values" (Lindblom, 1959: 82). The risk of upsetting the shareholders by reducing or withholding dividend temporarily in favour of increased capital investment, varies according to whether the firm is seen as offering growth; which proportion of shareholders want capital growth and

which proportion wants income; the investment alternatives open to shareholders; and the general state of the economy. As Lindblom notes:

> attempts to rank or order [objectives] in general and abstract terms so that they do not shift from decision to decision end up by ignoring the relevant marginal preferences *(1959: 82).*

Limited analysis

Lindblom notes that analysis in the rational method is comprehensive, every important factor is considered. In administrative practice important alternative potential policies and outcomes are neglected. Administrators will seek to build on existing experience by claiming insight to the future and will minimise choices which carry unpredictable consequences. Marginal analysis is further supported by the tendency to accept new ideas gradually, and even retards the 'newness' in the process. Such forms of conservative behaviour can also be found in private enterprise and is generally associated with very large firms operating within a very stable competitive environment with little technological change. More generally, what might be regarded as marginal analysis by some and as risk taking by others is relative to the history of the firm, technical knowledge and capabilities, leadership style, competitive environment, and the beliefs and aspirations of those in the particular enterprise.

Lindblom maintains that the neglect of possibly important policy options may seem random, for example both long and short term policies and outcomes have an equal chance of being neglected, but is still preferable to a prescription of impossible comprehensive analysis. The administrator's decisions are therefore no less valid in the light of such neglect. Support for Lindblom's view that administrators make strategic decisions based on choices at the margin of existing alternatives comes from Simon who notes that:

> administrative man [sic] ... is content to leave out of account those aspects of reality - and that means most aspects - that are substantially irrelevant at a given time. He [sic] makes his choices using a simple picture of the situation that takes into account just a few of the factors that he regards as most relevant and crucial *(1957: xxv-xxvi).*

Simon also suggests that organisational decision processes are 'composite', rather than the preserve of one individual typically at the top of the hierarchy.

> In the end, the officer making the final negotiation or signing the contract, though appearing to decide at least the major questions, is reduced almost to performing a ministerial function. The major decisions were made neither by the board nor by any officer, nor formally by any group; they evolved through the interaction of many decisions both of individuals and by committees and boards. No one [individual] is likely to be aware of all the decisions entering into the process or of who made them, or of the interaction through a period of time that modified decisions at one point and another. ... decision is almost always a composite process of this sort *(Simon, 1957: 222).*

Simon's decision process as one of mutual adjustment or 'satisficing' seems to reinforce Lindblom's central argument of 'muddling through'. Simon (1957) suggests that the process of composite decision can be understood in terms of how much discretion individuals enjoy, and what mechanisms the organisation uses to influence the individual's decision criteria, such as authority, advice, and training.

In short Lindblom maintains that the rational-comprehensive method is no more rational than the process of successive limited comparisons and that the former is impossible because values, means, and ends are bound together. He proposes his branch method as a better description of practice since it shows the administrator dealing with marginal differences rather than a comprehensive array of all possible choices which can never be known and which in any case is beyond administrators' individual cognitive capacities.

In the rational-comprehensive method a 'good' policy is one which can be shown to be the most appropriate means to desired ends. Lindblom suggests that in practice the test of a good policy is one that administrators can agree on, rather than its fitness for achieving ends. Demonstrated fitness for purpose is a bonus. Furthermore administrators are able to agree on a specific policy while holding different ideological positions. As an extreme example, any attempt by the firm's leadership to redefine the pay scales for all staff is likely to lead to significant and collective resistance. However, more small scale negotiations, even down to an individual level, spread out over months is more likely to be successful. Comprehensive

objectives are only valid if those having to achieve them agree with those objectives. The test of a good policy in the root method is therefore in practice the same as in the branch method.

Comprehensive theory or 'learning by doing'

The root method is founded on practitioners' drive to organise specific experience into general categories or theories about relationships. The assumption is that this provides an effective means of applying rationalised experience and accumulated knowledge to specific new problems. The difficulty is that our poor understanding of the multidimensional nature of the social world means that theories about most relationships are at best tentative and easily shown to be inadequate.

Far better, according to Lindblom for the policy maker to accept that policies and outcomes can only achieve an approximate result. Therefore a step by step approach is preferred since if most of what is intended for the future is similar to what was achieved in the past then few serious long lasting errors are likely to result. Theory is unnecessary since the administrator reduces the complexity of the task to one of comparing policy differences at the margin.

Where the rational-comprehensive method aims for accuracy guided by theory, 'learning by doing' or 'successive limited comparison' describes a process where,

> policy is not made once and for all; it is made and re-made endlessly. Policy-making is a process of successive approximation to some desired objectives in which what is desired itself continues to change under reconsideration *(Lindblom 1959: 86).*

Lindblom's branch method seems descriptive of firms that develop through incremental product changes and manufacturing process improvements, and firms which Freeman (1982) might describe as following an 'imitative' strategy. These firms operate in established and stable technologies, relying on more innovative firms to develop both the technological improvements and markets.

Lindblom's analysis highlights the role of social values and the futility of a determinate metaphor. However, his suggested 'successive limited comparison' approach risks producing

completely arbitrary outcomes in the face of a fast changing and developing environment, because he denies or significantly understates the scope for strategic intent shaping outcomes.

2.3.4 Social construction

An emerging set of ideas about strategy, "emphasizes the importance of symbol manipulation, shared meaning, and co-operative actions of individuals" (Chaffee, 1985: 95). This perspective posits a more sociological view of strategic management in that managers operate on a reality which is socially constructed and manage the organisation by co-operative agreements or social contracts, "entered into by individuals with free will" (Chaffee, 1985: 93).

Many writers both within and outwith the strategy field, equate organisations with Boulding's (1956: 205) hierarchy of general systems, in which there are eight levels. The lower levels are mechanical, moving up in complexity through the biological, with "symbolic images in human behavior" at level eight, and 'transcendental systems' at level nine. The variables determining the pattern include: language, discourse, laws, roles, ritual, custom, ceremony, norms, folklore, stories, beliefs, myths. These patterns are symbolic constructions and are the means by which organisational members make sense of their interrelationships.

The validity of conceiving of strategic implications as a social construction is implicitly supported by Loveridge's study of the implementation of IT to improve services in banking, retaining, and health care. Loveridge notes that managers' subsequent interpretation of IT as having systemic significance is "shaped by earlier 'problem' applications and, often, by the crises that triggered the search for earlier IT solutions"(1990: 341). The consequences of this, as he points out, is that managers' creativity in terms of how IT may be used is guided and informed by their previous learning. Similarly, Metcalfe and Gibbons (1989) in their development of an evolutionary metaphor for technological innovation, note that firms' development options are severely constrained by their knowledge base: existing technological knowledge and ways of organisation. Moreover, Chaffee (1985: 96) notes that

"organizations recovering from decline used adaptive strategy, but it was their use of interpretive strategy that differentiated them from organizations unable to recover".

Within the interpretive strategy framework the notions of 'paradigm' and 'symbolism' seem to have attracted considerable attention during the 1980s, as evidenced by the number of management articles and books.

Paradigms

During the last decade, recognition of the interplay between the organisation's political forces, cultural underpinning and cognitive processes has been growing. For example, a longitudinal case study carried out by Johnson (1989) during the 1980s, traced the rise and fall of Foster Brothers, a well known national retailer of, primarily, men's clothing. Johnson found that the demise of the company could be explained by reference to a very strong paradigm within the company, which he defined as:

> a set of beliefs and assumptions, held relatively common through the organisation, taken for granted, and discernible in the stories and explanations of the managers [which played] a central role in the interpretation of environmental stimuli and configuration of organizationally relevant strategic responses *(1989: 45)*.

Certain environmental signals were ignored because they were out of harmony with the paradigm. Threats to the paradigm, such as political challenges against those most associated with the organisation's core values were strongly resisted. Managers, in seeking to make sense of discordant signals, would either look for ways of re-organising the signals to fit with core beliefs or make marginal adjustments to the paradigm.

As noted earlier, Johnson challenges the validity of Quinn's (1980) 'logical incrementalism', suggesting that managers may think that they are keeping in touch with the real environment, but in fact they are in touch with their own paradigm. The consequence of this 'strategic drift' is that organisations progressively loose competitive advantage through failure to maintain an adequate level of innovation, and market share. Others have accounted for strategic drift through different explanations. For example, Chandler (1962) noted the

resistance to changing established strategy and structure; Mintzberg (1978: 941) observed that the organisation's "momentum of bureaucracy" constrains its ability to respond to environmental change; and Miller and Friesen (1980) observed that managers needed strong inducements before they would destroy the old comfortable 'gestalt'. Whatever the route to strategic drift, most writers agree that managers do not recognise the need for, or are unwilling to change, until the time when nothing but an internal revolution will put the enterprise back on the rails. Current headline examples of companies experiencing this include IBM, Siemens, Eastman Kodak, ICI, General Motors.

The observation that enterprises experience periods of evolutionary development and growth interspersed with periods of upheaval and revolution has been accounted for by Hedberg and Jonsson who conceive of strategy formulation as 'discontinuous' in that from time to time the organisation's view of the world go through fundamental shifts which then occasion decision makers "to re-evaluate the importance of their decision variables; and they develop strategies that fit into the new mental frameworks" (1977: 89). They found that when organisations change strategies, sometimes in normal state and always in times of crisis, such change is due to a change in the organisation's world view. Hedberg and Jonsson (1977) further believe that discontinuities are the result of the ongoing interaction between rational analysis and fantasy, will and creativity, the rational analysis itself bounded by the organisation's set of myths or 'metasystem'.

A fundamental belief of the interpretive school then, is that in order to understand the decision making process, the necessary focus is not whatever form 'objective reality' may take, but to recognise that decision makers work with realities as reconstructed in their minds. If we add to this the notion that the human mind is in any case unable to fully comprehend the complex and dynamic nature of reality, as described by Simon's 'bounded rationality', then this seems to raise ontological and epistemological questions about who we are in terms of our knowledge and understanding and how can we know what we do know!

Symbolism

The manner in which organisational actors relate to each other can fundamentally affect formal and informal processes and outcomes. In a study of the executive staff of a large US insurance company Smircich (1983) found that the CEO's strong dislike for any form of conflict or disagreement among his staff resulted in the staff using language and forms of behaviour which reflected this. The CEO cultivated an ethos of keeping problems at bay; staff could talk about 'challenges' but not 'problems'. He wanted his staff to see themselves as a team, reflected in their slogan of 'wheeling together'. The Monday morning staff meeting was a ritual that the CEO found useful, but the staff did not. The CEO was eventually replaced but not until the company's financial situation was dire. The firm's deterioration was accounted for by the collective fear of raising controversial issues, such as questioning inadequate performance of departments.

Many organisations consciously try to create symbol systems as a way of signifying the required behaviour among employees. WL Gore & Associates is an American developer and manufacturer of high performance products for a diverse range of applications: medical implants, microwave electronics, industrial filtration, sports wear. There are no employees only Associates, each one being a shareholder.[2] Each business unit could receive golden eggs for patenting output, with the name of the responsible Associate etched on the surface of the egg. The internal vocabulary - 'commitment', 'accountability', 'freedom', 'fairness', 'the Gore graveyard is full of co-ordinators' - conveys very strong messages about 'the way we do things around here', and is meant to encourage the risk taking associated with technological innovation. New Associates are guided and taught the meaning and significance of some symbols while other symbols remain hidden in the subconscious of established Associates.

This opportunity for interpreting symbols differently can cause real difficulty and be counterproductive by generating dysfunctional individual and sub-group interaction. For

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[2] The author is drawing on his personal experience of being an Associate of the company.

example, Gore has offices in many countries, and 'the Gore way' seems to be interpreted in subtly different ways in each country; interpreted in ways that seem to reflect something of the national culture, or at least something of the national stereotype. While in principle there is no hierarchy, only 'leaders' and 'followers', there seems to be a very strong and almost formal hierarchy among Associates of the German office. There are also strong tensions among the European Associates. The British group express concern about 'German domination' and the German group question their British counterpart's general competence.

In general firms' leaders may seek to use symbolism to create some desired work ethos among the staff including the pursuit of excellence, achievement, aggressiveness, competitiveness, deep commitment to the organisation's values. While such behaviour may be encouraged as legitimate and even necessary for recognition, the probability is that many will respond differently to that intended by rebelling or retreating with a sense of inadequacy.

2.4 ENVIRONMENTAL DETERMINISM AND MANAGERIAL CHOICE

The preceding review of the nature of strategy has focused on internal processes. Little has been said about the nature of the environment, and the implications for managerial choice. Traditionally strategic choice is largely seen as being imposed by the environment. Market structure (barriers to entry, market concentration, integration) largely determines the conduct of firms (objectives, competitive strategies, investment), which in turn determines industry performance (profitability, growth, allocative efficiency). Firms have some influence, but essentially causation flows from the industry structure (Bain, 1951; Porter, 1980). Some industries are intrinsically more profitable than others, and firms should be guided by this when deciding which markets to enter and how to position themselves. The successful organisation will create competitive advantage by using technological change (seen as an exogenous variable) to improve production efficiency. The innovative organisation will also find ways of creating competitive advantage by changing industry structure, and erecting market entry and exit barriers. Despite the scope for organisational success through innovation, variation between financial and market performance, whether adverse or

favourable, is due to industry structure, rather than the implementation of previously formulated strategy.

Marris (1963) conceives of choice being divided between the firm and its environment. He locates local strategic choice within the firm. Managers are seen as actively attempting to manipulate the 'immediate' environment (barriers to entry and exit, costs, demand) in pursuit of growth strategies. The motivation for growth strategies is managerial status, prestige, and power. The main obstacles to growth are managerial limitations, demand and supply constraints. While the firm is engaged in manipulating the immediate environment, the 'super' environment (customer commitments to particular products, resistance to advertising, lack of information, industry structure, bounded rationality) remains constant.

The continued centrality in management teaching and practice of Porter's (1985) *Competitive Advantage* testify to the continued dominance of this 'structure-conduct-performance' model of competitive strategy. The implication is that individual firms are located within an external environment, and firms' resources and capabilities are of limited strategic significance.

Child (1972) contests the idea that organisational structure and performance is imposed by economic constraints of the environment, and locates 'strategic choice' within the firm. An organisation's politically dominant coalition has considerable strategic choice over both the organisation's internal arrangements, and environmental factors. From Child's perspective strategic choice is a resolution of internal contesting political forces, involving some give and take, and distortion of information. He ignores the extent to which internal practices, and the actions and interactions of people generate shared meanings that shape choice. The organisation remains located in an independent environment, and similarly technological change is seen as a independent variable impinging on strategic choice.

Marris' managerial limitations noted above, is based on Penrose's (1959) proposition that firm growth is constrained by limitations of managerial resources and capabilities. Growth eventually calls for more managerial services, but is constrained by the time and managerial resources needed to train and integrate new managers, time that cannot be spent on directly

growing the business. During the last decade Teece (1985) and other writers have been stressing the idea that competitive success comes from how practitioners manage the firm's resources and capabilities, rather than success being a function of industry structure. The role of capabilities is explored later in chapter 9, and it is sufficient to note here that the implication of a resource based theory of the firm, including Penrose's proposition, is that managers enjoy hegemony over the environment.

The 'make or buy' theory of the firm also assumes managerial freedom to choose. In this managers choose between market transactions (Coase, 1937; Williamson, 1975) and managerial control as alternative ways of strategic development in an external environment that is somehow passive. There remains the underlying assumption that managers retain free choice in their dealings with their competitive environment. Other theories about whether choice is motivated by economic, managerial, behavioural, or social responsibility objectives are also underpinned by an assumed freedom to choose. As Coombs and Richards note:

> managers can develop and implement 'strategies' that secure both quantitative and qualitative growth for the firms they control. While these theories analyse a variety of market and other forces that shape strategy, there is still an implied space for managerial choice, with the continuing effect of uncertainty and bounded rationality *(1991: 80).*

Taking the 'determinism versus free choice' debate as a whole, an organisation clearly does not enjoy unfettered hegemony over its environment, because that environment is made up of competing firms. In addition, the earlier exploration of the social constructivist view suggests that choice is limited by the organisational paradigm, a position that Metcalfe and Gibbons (1989) supports in their analysis of technological change and competition. Equally though, the apparent success of many firms suggest that the environment limits rather than denies scope for managerial choice. The issue of choice in terms of strategic intent is further discussed in chapter 9 in relation to the social construction of reality.

2.5 INNOVATION AND STRATEGY

2.5.1 The innovation in strategy

The various theories of strategy provide a useful backdrop against which to assess the relationship between strategy and innovation. Innovation is a process where organisations develop novel products or services, or novel ways of working, that prove useful to some community, and for which that community is willing to pay the provider.

The individual project or innovation may be seen as a means or plan since it is commonly argued that firms must innovate (means) in order to maintain competitiveness and growth (ends). For example Freeman's (1982) study shows the importance of industrial innovation to economic growth. While this rather narrow interpretation of 'innovation as means' seems intuitively right, the preceding review of the variety of meanings associated with strategy suggests that the innovation-strategy relationship is significantly more complex. Clearly the means-ends explanation provides only a partial view of the role of innovation as it fails for example to account for emergent or spontaneous innovation activity which fall outside of, and sometimes compete with, intended strategies.

Firms may intend innovation as means to an end, such as the introduction of automation to achieve greater efficiency, while for others the decision to introduce such equipment is an end in itself, a strategic decision demonstrating to the outside world that they are progressive and ready to embrace change. Further, the introduction of new technology to fulfil 'non-strategic' aims may over time assume strategic significance for the firm. For example, the decision to introduce IT within one part of the firm's operation will affect the existing level of integration and therefore relations between the new users of the IT resource and its internal and external customers. In trying to resolve the integration problem the firm's practitioners slowly learn to appreciate the strategic complexity surrounding the assimilation of new knowledge. Loveridge (1990) characterises the organisational learning process as two, possibly three stages. He suggests that at first practitioners adopt new techniques piecemeal. This is followed by a more coherent and wider adaptation of techniques as practitioners

become more aware of the possibilities. In a possible third stage, IT may move from being centrally controlled to being diffused and controlled by individual operating units of the organisation.

Clearly organisational learning influences what practitioners regarded as strategic. In addition firms that pursue the acquisition of new knowledge as a strategic rather than operational opportunity are likely to have a different learning experience since practitioners' expectations of outcomes will be different; the learning process will attract wider attention within the organisation that labels new knowledge as strategic. Fincham *et. al.* (1994) found that not all innovative activity is regarded as strategic. They found for example, that if a particular IT innovation is directed at improving local efficiency and does not challenge the existing political status quo or distribution of organisational expertise then it may not be regarded as strategic and will therefore probably have to run the gauntlet of some narrow financial justification, such as a payback evaluation.

A large part of strategy is concerned with the difficult task of balancing the day to day demand for cash against the need to secure long term survival through investment. The somewhat arbitrary distinction of strategic and non-strategic innovation and the attendant risk of incoherence in strategic decisions undermines the ability of corporate leaders to effectively manage that balance. Many studies have shown that not everyone in the organisation considers their contribution in relation to the organisation's strategy; a finding that in itself is a measure of the degree of internal coherence enjoyed by the organisation as a whole.

Within the hierarchy of different types of strategy (corporate, business, operational) specific innovations may have differing significance. For example a specific innovation such as a labour saving change in work organisation, may be perceived as strategic at an operational or 'local' level of the organisation where its impact is formed and felt by those closely involved with its progress. The extent to which the same innovation may be regarded as strategic at either the 'business' or more broad 'corporate' level will depend on the difference the innovation makes to profitability, the degree of internal knowledge differentiation, and conflict resolution and integration achieved within the organisation. It will also depend on

where managers are on the learning curve vis a vis the strategic significance of the innovation, and how far the innovation fits the corporate or business leaders' preconceived solutions for managing the organisation's relationship with its external environment.

While innovation readily conjures up images of firms introducing novelty or assimilating new ways of working, it is probable that most individual innovations are so incremental that they are often regarded as unremarkable events. Rosenberg in surveying the history of technical change cites a number of studies that show innovation "as consisting of a steady accretion of innumerable minor improvements and modifications, with only very infrequent major innovations" (1982: 7). He quotes an example from petrochemical refining where the cumulative effects of cost reductions due to incremental technical change far outweigh the benefit of the initial technical development. Individual improvements, however minor, come as a result of the application of expertise to both familiar and unfamiliar situations. Such improvements are likely to attract attention when they can be shown as contributing to profitability gains, through productivity or qualitative improvements, or their proponents present them as 'strategic'.

2.5.2 Innovation studies

Many early theories of innovation have focused on the lone entrepreneur. McGuire in a review of the relationship between innovation and culture observed "a hero theory of innovations and progress" (1964: 233), exemplified by Schumpeter (1947) who credited entrepreneurs as the driving force behind innovation and wealth creation. McGuire presented Mitchell (1949) as representative of an opposing view that gave the external environment precedence over the entrepreneur. In this 'environmental theory' the driving force is the "the accumulation of knowledge and the 'times'" (McGuire, 1964: 233). Many others have since countered the hero theory, saying that credit belongs to the team, that many people contribute to the process.

Attempts at understanding the process taking place within the firm come from a number of directions, some taking an economics perspective while others adopt a more behavioural approach. Nelson and Winter (1977) suggest that the classical economics production function model is too limited as it takes innovation as a given in seeking to explain economic growth. While it may be possible to show correlation between R&D spend and capital investment for example, nonetheless it remains a fact that R&D is not an independent variable, nor is there a clear chain of cause and effect between R&D and innovation.

Explanations of 'demand-pull' and 'technology-push' provide only a partial view. This has been recognised by Freeman (1982) who coined the term of 'coupling' as a way of explaining the key reason why firms in the SAPPHO study (SPRU 1972) were successful innovators. The aim of that study was to identify the characteristics of success and failure of innovating firms. The contribution of Freeman and project SAPPHO has been immense in providing insight to the attributes necessary for successful innovation: effective in-house professional R&D, patenting for commercial protection and negotiation, paying close attention to the needs of the potential users and if necessary their early involvement and education, sufficiently strong entrepreneurship to co-ordinate marketing, R&D, production, good communication with the appropriate scientific community and with customers.

Surprisingly there was inconclusive evidence to support various 'common sense' notions. For example, there seems to be little correlation between failure and attempts to innovate in directions unfamiliar to the firm. Competitive pressures (external factor) and the associated drive toward shorter lead-times (internal factor) may be necessary but neither factor alone is sufficient to achieve success. Success depends on spotting and meeting user needs through effective technical development, and internal communication (among R&D, manufacturing, marketing). Further, Freeman notes that,

> for those who believe in the amenability of innovation to planning techniques, no relationship was found between success and the capacity to set and fulfil target dates for particular stages for the project plan, nor in the general approach to planning of the innovators *(1982: 123).*

The implication of this observation is that synoptic strategic management, and possibly logical incrementalism discussed earlier, either inhibit or are incidental to organisations' innovation successes.

Such insight is valuable because it indicates what resources and processes are needed to make a success of the individual innovation. In addition however, we need to know more about how the activities of various key figures identified (technical innovator, business innovator, chief executive, product champion) relate to the firm's unfolding strategy. For example, how actors within the large firm generate, select, develop ideas into profitable innovations within the context of competition between obsolete, current and new expertise, both technological and managerial; the influence of professionalisation of particular bodies of expertise; the pervasive effects of socio-political diversity and interdependence within the firm. We also need explore these issues in the context of the firm's relations with other institutions.

Motivated by a desire to guide USA policy thinking on why some economic sectors seemed to show greater productivity growth than others, Nelson and Winter (1977) proposed an evolutionary theory of innovation. They believe that sectoral differences in technological progress could be better understood in terms of the evolved relationships among institutions within a particular sector. For example, there is a vast difference between agriculture and aerospace, quite apart from their respective technologies, in terms of funding processes, regulatory mechanisms, and the influence of market and non-market actors.

Accepting that there are important sectoral differences, Nelson and Winter (1977) also seem to say that regardless of sector, there is an essential character to innovation processes. It seems that while it is generally driven by purposive investment, it is one of uncertainty in different dimensions. Innovation takes place in a setting of organisational complexity and diversity. It is a process transcending the organisational boundary and is,

> stochastic, ... evolutionary, ... involving a continuing disequilibrium. At any time there is coexistence of ideas that will evolve into successful innovations and those that will not, and actual use of misjudged or obsolete technologies along with profitable ones. Over time selection operates on the existing set of technologies, but new ones continually are introduced to upset the movement toward equilibrium *(1977: 48).*

There is uncertainty in: choosing technologies; technical direction within a given technology set; at the level of the individual project; and whether or not the market will accept the product. In seeking to 'couple' technological possibility and environment selection, practitioners achieve a state of continual competitive imbalance due to the constant emergence of new technological platforms and shifting expectations of market and non-market factors. Nelson and Winter regard the process as 'stochastic' because project choice and outcome are surrounded by an almost infinite selection of alternatives; there is an inability to reliably quantify cost and benefit; there are no reliable search mechanism to help separate good and bad projects; and the selection environment has the power to accept or reject projects.

2.5.3 Intended and emergent strategy

There is an assumption that in formulating and implementing strategy managers have already analysed technological possibilities, commercial opportunities, and the organisational resources and capabilities. Burns and Stalker, in their well known study of technological innovation noted that changing environmental conditions and stable conditions require different organisational forms. Moreover they suggest it is the task of managers to design the appropriate form:

> there is an overriding management task in first interpreting correctly the market and technological situation, in terms of its instability or of the rate at which conditions are changing, and then designing the management system appropriate to the conditions, and making it work *(1966: viii)*.

Underpinning this description is a sense of managing strategic change systematically. Also implicit is that organisational development depends on leaders' ability to anticipate and separate out in advance successful from unsuccessful initiatives. Langrish *et. al.* (1972) in attempting to identify why some firms were more successful than others carried out a study of winners of the Queen's Awards For Industry. In trying to move beyond the omniscient practitioner they concluded that the successful 'coupling' of technical possibility and market opportunity is an emergent process:

> Perhaps the highest level generalisation that it is safe to make about technological innovation is that it must involve synthesis of some kind of need with some kind of technical possibility. The ways in which this synthesis is effected and exploited take widely differing forms and depend not only on systematic planning and the 'state of the art' but also on individual motivations, organizational pressures and outside influences of political, social and economic kinds. Because the innovation process extends over time, it is important to retain continuous sensitivity to changes in these factors and the flexibility to perceive and respond to new opportunities *(Langrish et. al., in Freeman 1982: 126, 127).*

Mintzberg and McHugh in their analysis of Honda's post war growth observed that "strategies grow initially like weeds in a garden" (1985: 195). Novel ideas may emerge which were not anticipated but are a by-product of the organisation's strategy, some with strategic implications, others mere blind alleys. Many weeds are supported and championed, competing with approved projects for financial resource and political support. Further clouding the straightforward formulation and implementation of strategy are various forms of resistance, often due to a fear of the unknown implications of the new. Whether or not all the analysis has been done, managers still have to make somewhat arbitrary decisions about where to steer their resources and capabilities.

2.5.4 Sustaining competitive advantage

There is both interdependence and tension between the need to achieve continual improvement in competitive performance while at the same time seeking and building capabilities which provide sources of sustainable competitive advantage. This means that corporate leaders must constantly balance the immediate demand for positive cash flow with the critical need to invest in the building of a knowledge base and capabilities for which there is believed to be a demand over the long term.

Regardless of this dilemma, many firms seem to face another; innovate or perish. In their study of the post innovation performance of firms, Georghiou *et. al.* (1986) found that innovating firms regarded imitation as a real threat to their benefiting from their own efforts over the long term. Further, according to Georghiou *et. al.,*

> the challenge to the innovating firm is to respond, but in doing so, it commits itself to a sequence of post-innovation improvements which are a necessary condition for it to retain or expand its market share *(1986: 3)*.

Individual innovations are at risk from competitive action in two respects. One is what Metcalfe and Gibbons calls "revealed performance", consisting of technological "product and process attributes" (1989: 165). Competing products are selected for their performance characteristics as well as the economic value attributed to that revealed performance by the selection environment.

Less obvious yet a significant source of imitation and comparative improvement is the notion of a knowledge base that transcends the organisational boundary. Fincham *et. al.* (1994) observed that the introduction of IT based innovations in one bank was soon followed by similar or improved IT innovations from competitors. Fincham *et. al.* found that the ability of competitors to imitate or improve on each others revealed performance in very short time - week of months - was largely due to the free movement of IT professionals within and around the financial services sector. As a comparatively new and unique technology offering a rich source of competitive advantage, IT is undermining attempts to build sustainable advantage because of the rate of circulation of IT personnel across the organisation-environment line. A similar dynamic may be observed in the American 'silicon valley' where engineers are induced to move between companies frequently, or are encouraged to start their own business. This must contribute to the rate of technological change and fierceness of competition among microprocessor developers.

Mitigating against the threat of imitation is evidence that competitive performance is difficult for potential competitors to replicate, partly due to 'causal ambiguity' (Lippman and Rumelt, 1982), including the invisibility of the innovator's tacit knowledge (Senker, 1993), and the uncertainty surrounding a firm's source of competitive advantage, such as how it is making efficiency gains. Rumelt (1984) similarly found that 'isolating mechanisms' such as information asymmetries and property rights inhibit imitation.

2.6 KNOWLEDGE AND INNOVATION

Strategy is a learning process creating new knowledge, changes in work organisation, ambiguity and uncertainty in meaning. Researchers increasingly explain innovation in terms of the creation and exploitation of a knowledge base (Teece, 1988; Metcalfe and Gibbons, 1989; Faulkner and Senker, 1993). What counts as valid strategy and knowledge may be constrained and facilitated by previous knowledge, its political value, existing rules of thumb about how to compete, and the capacity to absorb new knowledge. This section reviews various ideas that seek to explain innovation as an evolving knowledge base, crystallising as technological regimes, design configurations, products and services, and supported by an organisational paradigm. This section also explores the extent to which knowledge bases are both common and unique to firms, giving rise to diversity among firms and their innovation opportunities.

2.6.1 Evolution and innovation

Metcalfe and Gibbons (1989) offer a theoretical sketch of the relationship between technological change and the long term competitive performance of the firm and, in passing, define knowledge as 'structured information'. They further suggest that while "information may exist in data banks, knowledge can only exist in the mind of individuals" (1989: 167). They seek to explain technological variety across firms, how the selection environment operates, and the behaviour of firms.

They base their analysis on the evolution metaphor because, they argue, the elements of variety, selection and heredity provide powerful insight to their notion that economic change is due to economic variety which in turn is caused by the environment selecting between different and competing technologies. Their discussion of technological change have the characteristics of inevitability, akin to Nelson and Winter's (1977) 'natural trajectories'. This is clear from their call for a shift in focus from treating innovations as discrete events to

"treating innovations in terms of an evolving flow of developments within the confines of a technological agenda" (Metcalfe and Gibbons, 1989: 161).

2.6.2 Technological regimes, configurations, and sociotechnical systems

The organisational knowledge base manifests itself as the 'revealed performance characteristics' of the firm's products and processes. The selection environment chooses between products and processes directly and knowledge indirectly. In many industries competition operates directly on the firm's ability to manage knowledge. Noteworthy is the service industry which accounts for at least 40% of GDP of most western nations' economies. For example, in the air travel business, competitive advantage goes to firms that can on demand, explicitly demonstrate knowledge about prices, connecting routes, alternatives, etc. Information is the firm's product, but knowledge about how to manage that information is their source of advantage. In addition, the more sophisticated the product the more the vendor must bring knowledge to the fore in an overt way. Examples range from consultancy, technical support, to the fast growing trend among firms who have large internal telecomms facilities to delegate the management of their communication needs to one of the telecomm equipment suppliers.

Furthermore, as selection environments evolve (for example, developments in IT and telecommunications, user requirements, regulation) the continued success of many firms requires the co-evolution of their technological knowledge and work organisation practices. Included in that co-evolution is the development and maintenance of links with particular elements of the selection environment, such as user led rather than manufacturer led innovation (von Hippel, 1988), and industry-public sector knowledge flows (Faulkner and Senker, 1993).

Metcalfe and Gibbons propose that competition between technologies operate in a hierarchy of three levels. Fundamentally different technologies or 'technological regimes' may compete, for example coax-cable versus optical fibre signal transmission. Within one

technological regime, for example optical fibre, alternative 'design configurations' compete, involving different combinations of signal transmission media, such as monomode or multi-mode, and signal carrier source, such as laser or light emitting diode. The characteristics which bind various design configurations together as a regime is a common knowledge base, while the components of the design configuration include "facts, hypotheses, operating procedures (know-how and know-what), and design parameters" (Metcalfe and Gibbons, 1989: 161).

Metcalfe and Gibbons argue that scope for firms to differentiate themselves is least when their products compete within a design configuration, due to a largely common knowledge base, and greater when their products compete between regimes. Relatedly, Coombs and Richards' (1991) case studies suggest that technological rather than product knowledge is a key source of competitive advantage. They argue that technology as "bodies of knowledge and expertise" (1991: 171) influence product development in a variety of ways, at different levels of aggregation, and may be more or less firm specific. First, knowledge and expertise may aggregate around products or projects in different ways: individual products, product groups of varying complexities, and experimental technologies. Product groups for example, hold in common some aspect of their revealed performance, such as engine fuel efficiency, or the processing speed of a microprocessor. Second, the notion that technical change follows a broadly predictable pattern or trajectory suggests an industry level technological trajectory encompassing the knowledge bases of groups of firms. Third, while firms within a sector share certain capabilities, they also possess proprietary knowledge and expertise. In this way firms may have individual trajectories of knowledge that manifest themselves in the revealed performance of their products, and in the particular or idiosyncratic way that the firm's capabilities and technologies develop.

Drawing on this distinction Coombs and Richards found that "there is a general tendency for the required technology base of firms to expand at a faster rate than their product portfolio", and that "systemic environmental forces" seem to account for this tendency (1991: 172). They argue that firms need to understand the technologies of their suppliers and customers, at

their own expense, in order to offer competitive products or services. As Coombs and Richards observe, this differentiated development between a firm's technologies and its products carry strategic implications:

> firms come under increasing pressure to manage their access to a wide base of public and semi-public knowledge, and to use the knowledge strategically. To use it strategically, however, they need to increase the private, firm-specific character of that knowledge, and this creates some tensions and problems *(1991: 172).*

One problem the firm faces is defining the nature of its knowledge base, and distinguishing between different kinds of knowledge. Defining the categories is not straightforward as evidenced by the different ways that Winter (1987) and Dosi (1988), and Fleck and Tierney (1991) categorise knowledge. Coombs and Richards suggest that Whelan's categorisation (1989, cited in Coombs and Richards, 1991: 83) of technologies is useful here: critical, enabling, strategic. The first category is technology (ies) that is core to the firm's distinctive capabilities; the second is less proprietary and may be common to a sector, such as IT; the third is a source of new competitive advantage and may grow out and eventually become part of either of the first two. Coombs and Richards do not address the profound difficulty and danger of applying such a typology. Proprietary knowledge and expertise typically exists as a distinctive mix of both critical and enabling technology, and to attempt a separation risks destroying the source of advantage through arbitrary distinctions of technology. Practitioners may like simple guides to action but it is clear that firms do not evolve by adding new knowledge in a rational-analytical way. Rather, that which it is willing and able to assimilate is circumscribed by its existing tacit and firm specific knowledge, by its organisational structure, communication and decision making processes, by its ability to access and absorb public knowledge, and by the cognitive limits of decision makers and information handlers. Knowledge accumulation is further shaped by the informal social network which transcends formal hierarchies and organisational boundaries, where knowledge is a currency used by and against individuals and institutions.

Nelson and Winter suggest that in a technological regime what matters is "technicians' beliefs about what is feasible or at least worth attempting" (1977: 57). Similarly Metcalfe and Gibbons note that,

> the knowledge base of a business unit coalesces around a design configuration, and that the organizational structure builds within it a growing commitment to this design configuration, both limiting and shaping how the organization reacts to external technological developments *(1989: 168).*

Metcalfe and Gibbons suggest that firms' choices are at the same time constrained by its practitioners' socio-cognitive commitments as well as an independent 'technological agenda'. These seem like opposite positions but elsewhere they note that "a great deal depends on a firm's expectations of the agenda for change, and thus on the design configuration in which it operates" (1989: 188). They seem to be suggesting that there is a technological agenda that is independent of the firm, and that practitioners commit to this agenda through the establishment of practices and learning what works. For them the firm resides within this independent technological agenda. This is evident from their comments that

> from a technology strategy viewpoint this evolutionary framework raises interesting questions for any firm. Do management know the full extent of their technology set, how it is currently partitioned, and where they stand within it? Have they a correct perception of the characteristics which consumers value in the product and of their relative valuations? Are they aware of the imminent changes in this structure of economic valuations? *(Metcalfe and Gibbons, 1989: 189-190).*

Many firms do interpret market wants and needs by improvements within the constraints of a design configuration, while others adapt by moving from one design configuration or technological regime to another. However, many firms also seem to be redefining or combining existing areas of knowledge to create entirely new regimes, building competitive advantage by using their capabilities to distance themselves from each other. For example, Sony's integration of electronic and mechanics to produce portable consumer (mecatronic) goods. Sony and other innovative firms seem to have become increasingly aware that the technological agenda is not given but open to definition. Organisations also seem to be more self aware, recognising that their own socio-cognitive commitments and culture shape their choices.

The scope for redefining different areas of knowledge and creating new 'technological configurations' (Fleck J., 1993) can also be seen where users attempt to adapt a technology to their particular requirements. Drawing on examples from robotics, and computer aided production management (CAPM) Fleck shows the 'looseness' or openness in the developing state surrounding the implementation of a particular technology against user requirements. The openness of a configuration exists because of the particular problems, capabilities, historical development, and expectations of each user organisation. According to Fleck such openness "offers great opportunities for innovation at the level of the whole configuration itself, rather than only in terms of secondary or incremental innovations" (1993: 18). A related concept is Pinch and Bijker's (1984) 'interpretive flexibility'. In their study of the development of technological artefacts, they show that interested parties do attribute different meanings to the same 'facts' and artefacts, and that there is more than one way of designing an artefact.

Metcalfe and Gibbons provide a sense of the diversity both within and between technological regimes and therefore the variety of ways in which knowledge and its appropriability may unfold. They suggest that

> regimes differ according to the proportion of knowledge which is discovered by scientific or empirical means; they differ in the division of knowledge between codifiable, publicly available, and tacit form, specific forms; and, they differ according to their dependence on other knowledge bases that are generated outside the industry *(1989: 164).*

The analysis of technological development as consisting of both continuity (regimes and design configurations) and change (changing revealed performance characteristics of artefacts) is useful because it does facilitate an analysis of innovation as an ongoing process of generation, development, and mutation rather than as a process consisting of individual self-contained events. Their insight further highlights the problems of rationalistic models of neo-classical economics and determinate strategy, where creativity and variety in creativity is not afforded a place in rationalistic analysis. Firms actively engage with the selection environment seeking to identify and redefine segments in terms of their perceived technological capabilities. Working against the firm - as noted earlier - is that room for

competitive differentiation becomes more marginal across similar design configurations due to greater overlap of knowledge bases. This engagement with the selection environment spurs the concurrent development of new and hybrid design configurations and market segmentation in the short term and new technological regimes in the long term.

The notion of a 'sociotechnical system' (Hughes, 1983) offers a way of representing how the firm might engage with its selection environment. This concept usefully highlights that the boundary between the firm and its environment is negotiated rather than given and independent. Hughes' study of the development of national electric power networks between 1880-1930, in Britain, Germany, and the USA, shows that many influences - beyond electrical engineering know-how - shared in the development of these national electrical systems. National power networks did not come about through the heroic energies of some lone inventor-entrepreneur, rather through a 'seamless web' of complex interactions between institutions and technological artefacts: political preferences, load factor calculations, capitalist economics, social values, competitors, and users. Indeed Hughes argues that "electric power systems, like so much other technology, are both causes and effects of social change" (1983: 2). Like the seamless web that binds Hughes' sociotechnical system together, Fleck's 'technological configuration', and Pinch and Bijker's 'interpretive flexibility' also suggests the impossibility of separating the definition of artefacts from their socio-economic context and, by extension, the arbitrariness of drawing a boundary around the firm and its artefacts.

2.6.3 Knowledge, work organisation, and 'world-view'

Metcalfe and Gibbons also studied the links between the variety in revealed performance and how "organizations structure and articulate their knowledge base" (1989: 167). They suggest that how knowledge is co-ordinated and divided within the firm determines how well such knowledge is exploited. For example, while the development of specialisation has advantages (learning economies, and ways of coping with human cognitive limits and partial ignorance) there are also inherent disadvantages of reduced flexibility in both individual and

organisation. It seems likely that firms to a greater or lesser extent do recognise that specialisation is a source of competitive advantage in the short term. However, the passage of time seems to dull the consciousness that loyalty to a narrowly defined technical base, such as a particular design configuration, carries the risk of competitive disadvantage in the medium and long term through substitute configurations and technologies.

According to Metcalfe and Gibbons the organisation co-ordinates knowledge through a "structure to communicate, filter and pool knowledge ". In addition this structure encompasses a "framework for thought, ... for distinguishing significant from insignificant events; a framework which gives the organization a world view". Further, since knowledge and theory are always incomplete there is room "for conflict ... and hence for variety in policy, strategy and behaviour" (1989: 167). They seem to regard the organisation structure as an agent (an "operator") transforming individual knowledge into collective knowledge.

The effective use of knowledge should be a major determinant of structural form but there are others. Politics and the organisation's history also tend to have a significant influence. Also, as firms' knowledge evolves it is contestable whether the organisational structure keeps pace or more importantly whether its members are able to interpret and anticipate a form of structure which is effective. Creativity, which is another issue but is interdependent with effectiveness, will be greatly influenced by such choices as the amount of centralisation versus decentralisation, the amount of formal rules versus autonomy. All of these considerations are based on the dubious assumption that firms are able to critically and self-consciously articulate their accumulated knowledge; that they know what they know.

Clearly the fusion of individual perspectives with different ways of organising and attendant communication and decision making patterns, largely account for the diversity of ways in which organisations both interpret and are interpreted by environmental agents, such as competitors, markets, non-market institutions. It is reasonable therefore to conceive of the organisation as synthesiser of a variety of individual knowledge, and to see why firms have different knowledge bases and differing abilities to change those bases.

The importance of organisation, communication and decision making patterns is supported by such studies as SAPPHO where innovating firms are said to owe their success to having good communication links between R&D, marketing, production, and the role of product champions and entrepreneurs. The prominence given to a leader pushing ahead heroically, vision in hand, with the rest of the organisation generally in compliant mood, disguises much of the collective decision making that supply individuals with their perspective on the world, sharing of knowledge, mutual respect, and adjustments to accommodate differences of perspective. This is especially true where specialist knowledge is able to influence strategic decision making through command of sufficient organisational power, such as the role of IT experts in banking (Fincham *et. al.,* 1994).

Metcalfe and Gibbons (1989) note that the firm's uniqueness of capabilities that comes from the mix of specialisation and the manner in which knowledge is organised can help explain phenomena like 'not invented here'. New knowledge is also likely to be rejected or resisted by various parts of the organisation if it is perceived as a negative change. Kotter and Schlesinger (1989) in their analysis of organisational resistance note that such resistance may take several forms: parochial self-interest, misunderstanding and lack of trust, low tolerance for change, different assessments of the problem or opportunity. The mix of specialisation and organisation of knowledge can also explain the difficulties experienced with joint ventures and technology transfers though this is a more complex issue. For example, success also depends on compatibility of 'world view', and the degree of preparatory exploration and integration of expectations of the parties before attempting to access each other's knowledge base.

The consequence of developing a strong and enduring commitment to 'the way we do things around here', in areas of specialisation, communication and decision making, is that an internal momentum along a particular path or design configuration is maintained. The development of knowledge and revealed performance are unconsciously committed to a particular range of options. This technological paradigm will tend to dismiss as irrelevant emerging competitive design configurations. As Metcalfe and Gibbons note, over time the

firm invests heavily in its organisation and knowledge base and "from this inheritance of the past come the chief sources of delayed adaptation to changed circumstances" (1989: 168). One manifestation of the paradigm is in the procedures and decision rules which a firm relies on to manage the complexity of even a limited range of strategic options. Nelson and Winter seem to share this view, referring to such decision rules or 'heuristics' as,

> an activity that has a goal, and a set of procedures for identifying, screening, and homing in on promising ways to get to that objective or close to it. The procedures may be characterised in terms of the employment of proximate targets, special attention to certain cues and clues, and various rules of thumb *(1977: 52-53).*

While the use of decision rules help apply order to multifarious organisational, technological and environmental directions, they also limit the assessment of possible important choices (Lindblom, 1959: 84) and thus guide creative thinking. As noted earlier, in some cases 'groupthink' may develop as "people [become] deeply involved in a cohesive in-group, when the members' striving for unanimity overrides their motivation to realistically appraise alternative courses of action" (Janis, 1972: 9). A focus on decision rules, mindset and groupthink behaviour might lead to the impression that all firms are pathogenic. Rather, all firms whose continued survival depends on co-operative behaviour between its individuals, reflect the diversity of those attitudes to varying degrees. Furthermore, many organisations are successful innovators precisely because they have a strong shared belief in and anticipation of some future scenario. In any case competitive advantage comes from the distinctiveness of the firm's knowledge base and how it uses that knowledge.

Recognising that the notion of a knowledge base is an abstraction, Metcalfe and Gibbons propose a way of making its interpretation more concrete. Any given design configuration may be described as consisting of knowledge elements which the firm brings together to transform raw materials into products and processes. For example, what materials, what processes, the order of assembly. They suggest three generic components; elements, level of skill, and how the skills are employed. These three components are uniquely blended by each firm to form a 'dominant competence'. It is the uniqueness of the way in which individual firms combine these knowledge elements and skills which gives a firm its revealed

technological performance and competitive advantage. Their attempt to make concrete the notion of a knowledge base has multiplied the difficulty of assessment, not reduced it. 'Elements' and skills are contextual and difficult to frame as is the uniqueness of the blend. Nevertheless, their use of 'elements' add further texture to the often referred to 'public, tacit and proprietary knowledge'. For example, where design configurations overlap, resulting in common elements these are public knowledge, although the possibility that it may be in the public domain is of little use to firms who are unaware of its significance and therefore cannot use it. Tacit elements are firm specific and proprietary.

The knowledge base of the firm also develops according to the way that its people interact with other external knowledge bases in universities, government, customers, suppliers, competitors, etc. A 'foreign' element may be absorbed by one firm and manifest as a new skill while another firm may reject it. All other variables being held constant, the firm which is able and willing to absorb new knowledge and adjust their dominant competence in line with environmental stimuli, is more likely in the long term to lead its competitive sector.

2.6.4 Environmental variety and scope for firm creativity

Metcalfe and Gibbons'(1989) suggestion that because of their socio-cognitive commitments firms experience great difficulty in trying to move between regimes or design configurations seems intuitively right, yet one of the surprises from the SAPPHO studies, as mentioned earlier, was that there was no correlation between failure and firms pursuing innovations in unfamiliar areas. The extent to which the evidence conflicts with the theory does need closer investigation. One argument might be that while Metcalfe and Gibbons' observation is true for most firms, their view does not account for the characteristic of an innovative firm; its creative talents and a willingness to engage in experimentation, to combine and redefine their technological environment. Further, writers on entrepreneurship typically point out the distinguishing characteristic of the entrepreneur as an ability to identify or create profit opportunities and configure their resources to exploit that opportunity ahead of competition.

There is a sense of the emphasis being on the lone entrepreneur looking for that gap in a largely homogeneous landscape.

In exploiting the evolutionary metaphor Metcalfe and Gibbons (1989) define that landscape as a selection environment that is heterogeneous in many respects. Although firms' choices are bounded by their socio-cognitive commitments, this does not mean that all firms are the same. Indeed scope for generating novel and economically useful solutions is inherent to the diversity of members' knowledge bases within a selection environment. Each firm (including competitors, collaborators and customers) carries different experiences, capabilities and competitive advantages, and expectations. As Metcalfe and Gibbons observe:

> unless firms have identical innovation opportunity sets they will not all end up with the same trajectories of innovation. Nor can identical opportunity sets be expected. Location in different design configurations, different perceptions of the agenda for innovation, different resource bases, and different abilities to innovate will all create variety of innovative response, even for firms within the same selection environment. Variety in creativity ... shapes the selection set [and] generates the possibility of selection *(1989: 188).*

In Peteraf's review of the literature on 'a resource based view' of the firm she notes four "cornerstones of competitive advantage": "that the resource bundles and capabilities underlying production are heterogeneous across firms"; the importance of creating barriers to competition, through for example 'causal ambiguity' and 'isolating mechanisms' as noted earlier; the existence of the 'imperfect mobility' of valuable assets such as key staff; and '*ex ante* barriers to competition', such as being able to identify an opportunity ahead of competition (1993: 185). Peteraf's work reinforces the importance of variety in the selection environment as a driver of opportunity. Her organisation of the literature into the four cornerstones is also useful in thinking about the nature of the innovation process. Successful firms have scope to be creative in a number of ways. From an innovation perspective her cornerstones enrich Georghiou *et. al.* (1986) and Metcalfe and Gibbons' (1989) observations that post innovation improvements are important. Her work offers a guide to where those improvements may be made. For example, *ex post* and *ex ante* ways of anticipating and blocking competitive action; and of enhancing the imperfect mobility of tradable resources

and capabilities, by perhaps more or less dependence on 'cospecialized assets' (Teece, 1987) of collaborative relationships.

Looked at this way the innovation process is much more than generating ideas, screening them, eventually leading to the timely introduction of a novel and useful artefact, with continuous performance improvements to the product or manufacturing process thereafter. The innovation process is multifaceted, and is sustained by individual firm creativity and environmental heterogeneity.

2.7 CONCLUSIONS

Strategy, whether determinate or chaotic and emergent, is the process whereby practitioners manage the resources and capabilities of their enterprise, and the enterprise's relationship with its competitive environment. For many organisations the price of continued membership of that environment is the need for incessant efforts in creating and maintaining competitive advantage. The key to competitive advantage is about changing the basis of competition in the organisation's favour; of conceiving of new ways of competing that confer financial and technological advantage. In short, managing innovation - in the broadest sense - is a central and critical preoccupation of the managers of an organisation's strategy. However there is no best way. As this review and the case studies in Part II show, the scope for innovation is multifaceted, and the way that innovation is managed within the context of strategy varies, not least because the context itself varies.

Managing innovation becomes increasingly complex as we acknowledge that the scope for strategic choice is constrained by a host of factors: knowledge of all relevant facts about the competitive environment remains incomplete, and in any case there is evidence that practitioners cannot deal effectively with all the possible information if it were available. Furthermore, practitioners' perception of the competitive world may be out of tune with the actual nature of that world.

Practitioners' capabilities in bringing together market opportunities and technological possibilities are constrained. This constraint exists because organisations accumulate knowledge in particular patterns, typically shaped by its work organisation arrangements and its paradigmatic view of the competitive world. This does not mean that the development of firms is constrained in a uniform way. Firms differentiate themselves from each other through their efforts to create and apply proprietary knowledge. This results in a diversity among firms' knowledge bases such that the innovation possibilities remain uncertain. The variety of influences (environmental and internal), the diversity of outcomes of their interrelationships, and the pattern and rate of change (both internally and externally), means that there is always scope for novel couplings between technological possibilities and market opportunities. This uncertainty of influences and outcomes also maintains a tension between strategic intent and outcomes.

To reiterate, my view of strategy at this point in the research process, and leading up to the fieldwork, is that it is a process of constrained rationality; practitioners are dealing with an independent and largely hostile environment; technological knowledge has a solidity and objectivity such that one may refer to its 'accumulation', like depositing more money in one's bank account. Staying with the banking metaphor, firms may accumulate different amounts of knowledge in different 'Whelan' accounts: critical, enabling, strategic. The practitioner's task of managing innovation is complicated by the degree to which their view of reality is misguided. This was my view of reality before embarking on the fieldwork.

The case studies of Part II support all three metaphors of strategy to some degree: determinate, managed chaos, and social construction. The Bank of Scotland evidence seems to support the determinate metaphor, and strategy in Ascom Timeplex could be described as managed chaos, even though there is evidence of a corporate grand plan. However the social construction metaphor proved most compelling as a framework for understanding all three cases, and this observation led to a revision of the original research questions (1.3). Indeed as noted earlier (1.3 and 2.1) this chapter is a partial review, with chapters 7 to 10 introducing other material that addresses the new research questions noted in 1.3. This separation has

been maintained to highlight that ideas held before the field work were overturned through engagement with empirical data, the writing of this chapter, and continued reading during the field work.

Although the social construction metaphor is addressed in this chapter it acquired greater significance as I tried to make sense of the fieldwork evidence. As noted above the practice of strategy in each of the three organisations seemed distinctive: strategy in each could be said to consist of a unique mix of determinacy and chaos, but this raised the question of how this uniqueness came about; and each could be said to have a different paradigm or perspective on the world, but again the same question arose. The observation that practice in each organisation was distinctive and taken for granted by the staff, and a curiosity about why that was so prepared me for a new interpretation of strategy. In parallel with the fieldwork I continued to read. One book, Berger and Luckmann's (1966) *The Social Construction of Reality*, provided a key. Drawing on their account of the pattern of everyday reality, I realised that one could see strategy as an everyday activity, patterned by practitioners' social interactions; interactions that tend to be taken for granted and unsurprising for those involved. Interestingly, not only did the evidence make sense in light of their ideas, but their ideas also made sense in light of the evidence. The consequence of this situation is that the analyses in Part III argues centrally that the practice of strategy is socially constructed. A further consequence of embracing a social constructivist perspective is captured in what, for me, emerged as an acceptable definition of strategy as practice (p. 231). That is, strategy choice ordinarily shapes, and is shaped by, practitioners' everyday and shared understanding of their competitive situation; choice is structured by assumptions, routinised behaviour as well as through experimenting and dealing with the unfamiliar, rather than detached analysis and statements of intent.

3

Research Design and Method

3.1 INTRODUCTION

This chapter consists of five sections. The first section outlines the aim and scope of this research as a precursor to arguing for a particular epistemological approach. The next two sections describe my epistemological position, and a research design and method that seems consistent with that position. I argue for a phenomenological rather than positivist epistemological approach, based on a case study research method, and a grounded theory analytical approach. The final two sections are a personal reflection on the process of discovery which this research took, and a conclusion. The first covers aspects of the fieldwork and its analysis, and is intended to help make the research process more transparent.

3.2 RESEARCH AIM AND SCOPE

The aim is to assess the ways that strategic choice in the strategic management of technological innovation is contested and constrained. More specifically the intention is to examine the role of certain underlying and interrelated features of strategy practice: differentiated meaning, paradoxes, heuristics, tacit knowledge, and informal networks.

Strategic management is commonly prescribed and analysed as a sequence of stages: 'strategic analysis', 'strategic choice', and 'strategy implementation'. The focus of this research is to develop a better understanding of the notion 'strategic choice'. The traditional view of strategy presents strategic choice as a component in a recursive process. This research suggests that strategic choice is more fundamental, and in practice underpins both 'analysis' and 'implementation', and 'organisational change' more broadly.

Strategic choice involves a 'contest' between interest groups, both within and between organisations. Different interest groups often have different perspectives and assumptions, for example about what constitutes strategy, or about the nature of the competitive environment. They also have partially divergent interests with respect to strategy and so will behave politically, using informal and formal means to secure their interests.

In any case, strategy itself involves dealing with paradoxes. Most obviously, there are the apparently conflicting demands between short term profitability and survival, and long term investment and growth. Also, organisations seem determined to increase control over their environment in a situation of profound uncertainty. Such paradoxes are another reason why strategy practice seems marked by contests.

It seems likely that the influence of each group is constrained in a variety of ways. The range of options is not limitless but rather narrow. There are two reasons for this. First, firms' decision making tend to be governed by heuristics; that is, previous decisions, existing formal decision rules and informal practices guide or focus decisions. Second, knowledge seems to accumulate in particular directions as organisations embrace new areas of innovation. Moreover, much of the requisite knowledge is tacit and not articulated in a public form.

These factors, individually and collectively, may significantly influence what counts as valid strategy and relevant knowledge (technological, organisational, commercial). Through these considerations research questions and a schedule of interview questions (see appendix 1) were developed to shed light on the nature of strategy and the role of innovation.

3.3 EPISTEMOLOGICAL POSITION

This research aims to make sense of strategy as a social phenomenon; to explain both the variety in, and the meaning people attach to, their experiences and expectations. This aim is not concerned with diagnosis; with identifying problems of social behaviour and proposing solutions to them. Furthermore this research assumes that the social world is not as material as the 'natural' world. Individuals and groups behave according to how they interpret their

situation. This research does not conceive of human behaviour and relationships as concrete, as objective phenomena that can be accurately measured.

The proposition here is that there is no law-like causal link between the behaviour of individuals and groups, and some external or environmental stimuli. The organisation's relationship with its external environment does not exist as some concrete, independent or 'natural' link. Any causal relationship, is grounded in a collective belief among competitors, customers, and other interested parties. 'The best way to compete in this business...' cannot be read off like instructions or imperatives from the material world. Competitors invest in technology to gain competitive advantage because they believe there is a link between technological expertise, artefacts, and competitive advantage.

This centrality of a collective belief is not to suggest that social relationships are somehow ephemeral, or are divorced from the material world. Organisations do develop reputations over time for being say, innovative, socially responsible, secretive, and so on. Companies do develop technologies and products that customers find useful, and unregulated behaviour among competitors and consumers can cause irreparable damage to the material environment. The social and material worlds are bound together in other ways, through for example symbolism. In the world of cosmetics, competitors with the help of their advertising agencies promote their 'fine fragrances' and deodorants based on a shared belief that consumers attach symbolic value to particular smells. The product is a material vehicle that helps customers access 'femininity' or 'masculinity'. During the last year a British industry regulator, the Monopolies and Mergers Commission (MMC) gave their support to those cosmetics suppliers who argue that the value of the product lay in its symbolic value.

Often the symbolism is attached not just to the product itself, but also to its name, packaging, price, and the kind of retail outlet that makes it available. Consumers are willing to pay a premium for branded fashion accessories because such products contribute to an image of themselves that the purchaser wishes to cultivate. Business lunches are more than a convenient way of saving time and re-fuelling the body. They are also rituals for establishing and reaffirming social relationships.

These examples show that the world is not simply divided into the social and the material. One gives meaning to the other in context. Since the research task is to find out how practitioners interpret their situation, then in-depth interviews with a wide cross-section of practitioners and observations of their situations are more appropriate than surveys using standard questions seeking 'yes or no' responses (Yin, 1984; Easterby-Smith *et. al.,* 1991). However, while interviews and observations may be appropriate techniques for soliciting meaning, they do have limitations. Unavoidably the researcher makes many assumptions that underpin the questions asked. Some of these assumptions are explicit, but many others are hidden from the researcher.

The researcher's own assumptions, values, experience, and general anticipation of things to come, will colour the questions asked and how the answers are interpreted. For example my research questions reflect the assumption that firms are largely free to compete with each other, compared to the situation of operating in a centrally planned economy. Again, the researcher might formulate questions, and solicit answers in a way that assumes the practice of strategy to be about managers being engaged in a calculative struggle to control an external and independent environment. In another example, the degree to which the researcher accepts or is sensitive to the gendered division of labour in organisations either opens up or ignores avenues for investigation. While the researcher aims to remain aware that s/he is guided by the 'taken for granted', 'radical humanists' or 'radical structuralists' might say that the researcher is unavoidably imprisoned by their own perspectives on the nature of organisations (Morgan, 1980).

The social interaction of the interview process generated its own symbolic relationships and meanings. For example, some interviewees were suspicious of my stated aims, and responded in terms that were consistent with what they thought I was really doing. In Timeplex a couple of people admitted that initially they thought my story about doing academic research was just a cover. They though I was either a consultant or someone from the company's head office, tasked with investigating them. They were ready to see subterfuge because there was already a climate of distrust and uncertainty within the organisation due to redundancies in

the recent past. Other interviewees initiated actions as a direct result of issues raised during some interview discussions. The Dean of the Open Business School said that as a result of our discussions, he took steps to improve communication between the centre (Walton Hall) and the Regional Offices.

While the interviews had some (unintended) effects, these did not appear to cause any significant changes in the way that interviewees or the organisation as a whole behaved. My intervention as researcher was localised and temporary rather than substantial and long lasting. The basis for this claim is that no one suggested that the research interviews caused them to change the way they worked. Many people said that the questions made them think about their situation, often in ways they had not considered before, and where the organisation was going. However I am unaware of anything more substantial happening, such as a re-organisation.

3.4 RESEARCH METHOD

3.4.1 The case study

The research method used was the case study. While some writers distinguish between different types of case study (Yin, 1989; Hertog, 1994a), this research reflects elements of those methods. Different options seem to characterise different stages in the process.

Hertog (1994a: 5) describes four alternative options: 1. the pure description of a social phenomenon, 2. the solution of a definable social problem, 3. the development of a theory, and 4. the testing of a theory.

The four alternatives seem to reflect two main epistemological positions and research traditions. One tradition is Glaser and Strauss' (1967) notion of 'grounded theory', an essentially inductive approach. The other is Yin's (1984, 1989) perspective, reflecting the testing of a hypothesis, and a deductive approach. With the former method the researcher

tries to generalise from the particular, while with the latter s/he starts from a general proposition and tries to apply it to the particular.

This research project formally began with the posing of a set of open ended research questions. While they were not hypotheses, they did carry assumptions about the nature of the social phenomena I wished to investigate. These assumptions were the product of experience as a practitioner, and a more specific and selective study of the literature in and around the research area. I therefore entered the research process with a 'unique' knowledge base of the social phenomena of strategy and the management of innovation. This position is some way from the unbiased open minded observer of Glaser and Strauss; a position that is unattainable for any researcher given their particular baggage of assumptions and experiences.

The resulting knowledge and expectations deployed in this research were arguably more akin to the choosing of instruments by Yin's positivist experimenter. Later in the research process, the post-fieldwork and analysis stage seemed to be a mixture induction and deduction; juxtaposing old ideas that looked as if they might shed light on the new situation under investigation, rather like Schon's (1963) description of the cognitive processes underlying the creation of new ideas. In other words, I have mixed traditions within the case study method as the research process unfolded. 'Reflections' below (3.5) give an account of how I moved from expectations to observation then to 'theory'.

Although these issues highlight the epistemological difficulties of the case study method, it is nevertheless an appropriate instrument in certain situations. In particular, for investigating contemporary social phenomena in context, where the phenomena-context boundary is blurred (Yin, 1989: 23), shifting and symbiotic. Importantly for the content of this research, Hertog (1994a: 5) suggests that the case study approach should also acknowledge the role of history as an influence on the future. Making sense of strategic options being pursued today requires an appreciation of the historical events and situations that helped shape strategy practice today.

In this research project, organisational strategy making, the on-going relationship between the organisation and its external environment, and the relationship between history and the contemporary are central issues. In seeking to make sense of the nature of strategic choice in the context of practice, the case study method provides an appropriate investigative framework, because it takes account of these conceptual issues.

3.4.2 Sources of evidence

The main sources of evidence at the organisational level were semi-structured interviews and direct observations. Additional evidence was collected from internal reports and plans, public performance accounts, promotional literature and press cuttings, public industry reports. Some archival evidence was also collected, going back one or two years. Despite the limitations of interviewing and observation acknowledged earlier (3.3 'epistemological position'), the use of interviews is recognised as appropriate for case study research, this type of study usually being an enquiry into social affairs (Yin, 1984). It is appropriate where the purpose of the research is to solicit the meanings that individuals attach to their situation, in social contexts that have not been structured in advance by the researcher (Easterby-Smith *et. al.,* 1991). Again direct observation is still recognised as a valuable way of enriching understanding of both the material and social context, and the social phenomenon being studied (Yin, 1984). Some of the following discussion is informed by such observational evidence.

Organisations chosen

Initially I approached nine organisations that met my criteria; that is, large complex organisations who regarded technological innovation as central to their future development. This provided scope for initial screening to eliminate those organisations likely to be problematic (for example, likely to drop out later on, or going through major internal changes). In the event three organisations were studied for this research. Three rather than

one was chosen in the hope that such an arrangement would enable comparative analysis. More than three would have demanded more time and effort than was available.

These three organisations were very different, using different technologies and serving different markets. Furthermore, they had no transactional relationship, such as being part of a common supply chain. They did hold in common a belief that their future survival depended on innovation in and around their expertise or competence base. The three organisations were Ascom Timeplex, the Bank of Scotland, and the Open Business School.

Ascom Timeplex (AT), a Division of Ascom, is a manufacturing enterprise, using expertise or competences in telecommunications networking and management information technologies. AT provides communication network products and technical services to international organisations, particularly financial services companies. My initial contact was a Director, with whom I had worked as a peer in a previous organisation. He agreed to co-operate but could not promise co-operation from his peers or subordinate managers. He arranged introductions from which I negotiated interviews, and found little resistance except for two refusals and one prevented from co-operating by his superior's tactics. From this case there were eleven interviewees including: UK Managing Director, Directors of Sales, Marketing, and Customer Support, and seven Customer Support managers and engineers.

The Bank of Scotland (BoS), part of Bank of Scotland Group plc, is a clearing bank, using expertise or competences in IT and banking. BoS provides financial products and services to individuals and organisations in Scotland and England. One of my supervisors, James Fleck, along with a group of researchers had carried out research in the Bank a couple of years previously (Fincham *et. al.,* 1994). This experience, and a positive predisposition among a few of the Bank's senior managers to my host institution, the University of Edinburgh, facilitated my contact's willingness to co-operate. There were ten interviewees: The General Managers of several Divisions: Management Services, International, Card Services, Domestic UK Banking, Centrebank, Accounting and Finance. Within Management Services three additional staff were interviewed, and one other within Card Services.

The Open Business School (OBS), also called the Faculty of Management of the Open University, is a business school, using competences in educational technology (distance teaching and learning) and communication media. OBS provides products and services (courses and associated support) to individuals and organisations, primarily in Britain but also expanding in continental Europe. Having worked as a part-time tutor with the OBS for the last five years I had already developed a good relationship with some members of staff. Indeed, I had worked with the Dean before he took office, and his support no doubt contributed to the ease of access. There were twenty four interviewees including: OBS executive (Dean, External Relations, Course Production, Course Presentation, Research, School Secretary), individual academics engaged in course writing, and administrative staff. Representatives of Open University groups that OBS depended on were also interviewed: The Institute of Educational Technology (IET/OU), Business Development Management Organisation (BDMO/OU), Open University (Pro-Vice Chancellor for strategic planning), and Regional Staff.

Interviews

Initially I met with my internal 'sponsor', the individual with sufficient authority to grant me access to their organisation. The discussion started with the research aims and my expectation that the sponsor would use the first meeting to fully satisfy themselves that the proposed research was something that the organisation would co-operate with. However, in all three cases this introductory meeting slipped imperceptibly into the researcher/interviewee relationship. This initial discussion also helped identify which individuals should be interviewed first (selection criteria listed below). Additional interviewees were similarly identified during these first discussions.

In order to develop a picture of the observed performance of the three organisations, I solicited individuals' experiences and views through semi-structured in-depth tape recorded interviews. That is, in each interview we focused on single issues from various angles, through a series of open ended questions (see appendix 1). For example interviewees were

asked to discuss their understanding of the concepts of strategy and innovation, and the relationship between the two. Interviewees were asked to give examples of innovation and why these were chosen as examples, and they were also asked to explain the strategy of their department and their organisation. The three organisations were interviewed sequentially, with interviews spread over the first nine months of 1994. From the interviews in each organisation, I prepared an account that aimed to reflect a collective perspective of each organisation's interviewees. How this evidence was organised and analysed is discussed below (3.4.3), Part II presents the evidence as coherent accounts, and Part III consists of analyses of the accounts.

A total of forty five interviews were conducted, each one 60 to 90 minutes long. The individuals interviewed were selected for a number of reasons, including:

1. They led departments directly responsible for the development, production, delivery, and support of product and/or service to customers.

2. They were regarded as key staff (apart from Departmental heads) who took part in decision making.

3. Their views were highly regarded by peers even though they might not have been a regular or formal contributor to strategy making forums.

4. They were willing to be interviewed.

Identifying individuals on this basis resulted in a substantial difference in the number of interviewees between the OBS (24 individuals) and the other two organisations, with 10 from BoS and 11 from AT. Furthermore although BoS and AT produced similar numbers, the formal positions of individuals were not comparable. This represents differences in authority structures and work organisation, and in particular it shows differences in the way that individuals have scope to influence organisational strategy processes. Some of these issues are examined below. 'Reflection' below (3.5) explores whether this range of interviewees

and their views are sufficient to contribute to an understanding of organisational strategy practice.

Variety in organisational attitudes to access

Variation in the way that these organisations treated the researcher contributes to an understanding of the differences in their strategy making processes. Having explained to my Bank of Scotland sponsor the research aims, he identified immediately that I needed to see five Divisional Managers in addition to himself. He then contacted them and suggested that they make themselves available to me. Unlike the Ascom Timeplex managers, I did not have to convince the Divisional Managers of the value of my research to them, as a precursor to the interview. However, there were limits to my sponsor's co-operation. Speaking on behalf of his colleagues, my sponsor said he was unable to grant me access to management meetings, because clients' financial situations may be discussed and these were confidential. Nor was he keen to arrange a meeting with the Bank's General manager, and suggested "that it might be possible some time in the future", after I had spoken with the Divisional Managers. My impression is that such access would be more likely if my relationship with key Bank managers were closer, as in the other two cases.

In contrast, access to Ascom Timeplex staff was more negotiated. Directors were willing to talk, and appeared to be quite open in sharing their opinions. More subordinate managers were much more guarded initially, with their willingness to co-operate being dependent on a certain amount of negotiation between us. For example, although my sponsor was a Director in the organisation, I had to meet his subordinate managers *en masse* and convince them that the research would be useful to them. Perhaps more critically, they wanted to satisfy themselves that I was legitimate, that I had not been sent by Head Office to spy on them! Their sense of suspicion and conspiracy was not saved up for me; it was endemic to the organisation.

A couple of AT people refused to be interviewed, perhaps because of the ambiguity surrounding their department's role in the company, since at that time there was some doubt about their future. I did not observe any internal meetings to discuss the direction and performance of the business, because these were exceptional and accidental in AT. Such meetings took place in the USA, although there was growing interest in having such meetings in the UK.

Access within the third organisation, OBS, was very open. I could talk to anyone and attend any meeting. I was even left alone to look through a filing cabinet of internal reports and memos for relevant information. In addition, I was invited to observe a two-day internal strategy review process, consisting of various workshops and discussions, and also observed a School Board meeting. I attended a small presentation given by a working-party (the electronic strand) who were tasked with recommending how the OBS should develop in view of the burgeoning availability of new media, such as CD ROM, and trends in information management.

The differences in access seem to be due to a number of factors, and provide a window on organisational attitudes and strategy making. Some of the variation in attitudes to granting me access, between OBS, AT, and BoS is probably due to the strength of personal relationship between me as researcher and the organisation's 'gatekeeper'. It also seems likely that the very senior people, particularly Directors, were more willing than subordinate managers to discuss the organisation's business. Indeed Directors and senior managers probably have more discretion and knowledge about the issues. This difference among staff may also be due to Directors being more practised at defending and showing accountability to shareholders and other public bodies.

Strategy issues affecting BoS are clearly the preserve of the Management Board: a group of about ten individuals and largely consisting of the General Managers of the Bank's Divisions. What individuals lower down the hierarchy learn about the Bank's strategy is determined by the Management Board, and filters down through the hierarchy. Middle managers and those below have a narrow and 'managed' knowledge of the Bank's strategy

and outcomes, and the variety of views held by the very senior managers. Their knowledge is managed in the sense that it is acquired second-hand through their superiors, typically through notice boards, company reports, staff presentations.

In OBS power and influence is very widely dispersed, and there is scope for a wide variety of individuals to directly influence strategy formulation and implementation. For example, strategy issues affecting OBS is decided by open committee. Meetings of the Board of the School of Management are attended by dozens of interested staff. Staff attend because they wish to actively participate in strategy development. Most attendees say little or nothing, but they want to know what is going on. Furthermore, by being there they are demonstrating a right to be involved, or to be heard. Perhaps in the same way that ramblers in Britain 'police' footpaths to maintain their right of way, many OBS staff attend meetings to reaffirm their right of access to OBS's strategy making.

While there is a hierarchy in AT, power and influence is distributed in complex ways. Individual managers and engineers routinely seek out opportunities to develop or exploit power and influence. In the BoS formal power and influence is concentrated at the top of the hierarchy. Although different part of BoS, could claim expertise and use it as a power lever, such as Management Services and their IT expertise, respect for the Bank's hierarchy is overwhelming.

Each organisation also took a different attitude over my freedom of movement. While on the premises of OBS I was free to move about unsupervised. On occasions when the Dean was out I used his office as my base. Security was clearly more important to both AT and OBS, with all staff wearing identify cards and departmental doors being controlled by card access devices. However, while AT staff initially escorted me everywhere, this was relaxed with each subsequent visit. In contrast at the Bank I was never left to wander around on my own.

Not surprisingly these organisations have different attitudes and strategy making processes. Perhaps less obvious is that these attitudes and processes are reflected in their treatment of the researcher. I was provided with relatively open access in OBS, managed access in BoS,

and a negotiated access in AT. The preceding discussion on the variation of treatment shows that comparative observation of the organisations' treatment of the researcher is evidence in itself.

3.4.3 Analysis

A structured approach

Given the epistemological position outlined earlier, and the use of qualitative interviews to gather empirical evidence, my preferred analytical approach is based on 'grounded theory'. This enables a holistic, intuitive, and inductive process of discovery (Easterby-Smith *et. al.*, 1991: 106). Strauss and Corbin (1990) offer a comprehensive set of procedures and techniques for analysing qualitative data. Easterby-Smith *et. al.* (1991) also offer a structured approach to grounded theory, but their approach is more loose with much less detailed prescription. While both approaches recognise that analysis or interpretation is an iterative process (Easterby-Smith *et. al.,* 1991: 108), and demands "openness and flexibility" (Strauss and Corbin, 1990: 26, 144), Strauss and Corbin's procedures are so detailed that the mechanics of analysis threaten to overshadow the possibilities for openness and intuition. I have tried to remain true to the method, in terms of analytical process, theoretical sensitivity, and "striking a balance between being creative, ... and doing 'good science'" (Strauss and Corbin, 1990: 10), but have not applied, for example, a detailed axial coding to the data. I found their approach useful as a guide rather than as a formal procedure to be adhered to in moving between the main components they suggest.

Strauss and Corbin seem to regard creativity and good science as opposites, in relation to which two points need clarification. First, good science as used here means being committed to providing a faithful account and robust analysis of interviewees' meanings; respecting the principles of validity, reliability, and generalisability. The notion of objectivity seems inappropriate since the focus of the research is on making sense of people's understanding of social processes, rather than for example establishing a statistical correlation between firms'

net profits and total investment over time. Second, being creative can still be good science; making novel connections between existing ideas and the new situation that shed new and useful light on the phenomenon.

In the interests of doing 'good science' Easterby-Smith's *et. al.* (1991: 108) research checklist has proved helpful because its structure is sufficiently loose to facilitate creativity:

1. Familiarisation with the empirical information. This was a function of two tasks. One was trying to write an account (case study) of the organisation from the interviewees' perspectives. The other came later, in trying to write an analytical account from my perspective.

2. Evaluating the data in light of previous research, theoretical ideas, personal experience, discussions with others. This meant revisiting many articles and books. Ideas that previously seemed not relevant, often because they were discussed in a different context from this research area, now seemed very relevant. Equally, some ideas that seemed initially to be important were left undeveloped because they did not seem to further understanding of the empirical evidence. Undoubtedly these change processes represent personal learning, both about the research process and its content, an example of the latter being a growing appreciation of the value of the social constructivist perspective and the sociology of knowledge.

3. Identifying or otherwise forming coherent ideas through 1 and 2 above. During the interview period I noted any ideas and themes that occured to me at the time. I re-visited this list of ideas during the analysis, elaborating some, finding similarities between others, and abandoning many.

4. Cataloguing and recording concepts identified in the transcripts. This was an extension of 3, but as noted earlier I did not apply the detailed coding procedure of Strauss and Corbin (1990).

5. Linking. I began trying to write coherent accounts around the emergent themes, and sharing those themes through discussion with peers and supervisors. I have spent a lot of time in this area, perhaps because it demanded greater emphasis on creativity: making numerous links between empirical material and theory that as a whole seemed coherent. Writing case study accounts without some conscious analytical structure resulted in confusing accounts. This then gave way to drafting an analytical account. Thinking through the analytical arguments helped in redrafting more coherent case studies. More coherent case studies in turn exposed ideas for further developing the analysis. Through drafting, moving backwards and forwards between case stories and analysis, and discussions with others, stronger arguments and links developed between the case material and its analysis.

6. Re-evaluation and cycling through all of the above. Rather than following a structured cycling through of the analysis process, my emphasis has slowly cycled from stage 1 through to stage 5, but not in an ordered way. For example, in linking empirical material with general models (stage 5), I have engaged in stage 2 activity, revisiting previous research and ideas.

Organisation of evidence

Implicit in any process of analysis is the organising and interpretation of the evidence. Initially, at the start of the fieldwork, the intention was to organise the evidence in three categories, and then to compare and contrast them: espoused performance, revealed performance as used by Metcalfe and Gibbons (1989), and observed performance. Evidence for an espoused strategy could be drawn from published information and supporting interview statements, including claims to financial performance, market position, innovations, performance characteristics of technologies, products and services. However, as the evidence seemed increasingly explicable in terms of a social constructivist perspective, many espoused factors such as product and financial performance, seemed definable as revealed performance (see for example 4.4.2 and 6.5.3). As MacKenzie shows in his sociological analysis of technical change "economic phenomena such as prices, profits and markets are not just 'there' - self-sustaining, self-explaining - but exist only to the extent that

certain kinds of relations between people exist" (1992: 37-38). Similarly the particular features of an artefact are not self evident; artefacts embody social preferences. These examples form part of a wider analysis in chapter 9. This inseparability of revealed and espoused performance meant that the former was no longer an appropriate category of evidence.

Distinguishing between espoused and observed performance depended on assessing and judging what the significance was of finding any inconsistency between documented evidence and the interview statements and observations. When interviewees distinguished between their understanding of how strategy worked and a formally declared strategy, this distinction was regarded as observed. On other occasions observation supported an espoused position, and this support or corroboration was also taken as observed evidence.

Evidence was also organised into that which described:

1. The decision making process, (espoused and observed),

2. The organisation-environment relationship (espoused and observed),

3. The relationship between the organisation's history and its contemporary strategy practice.

As noted above, these ways of organising the evidence have been influenced by my reading of previous research and theoretical ideas. The evidence is organised this way to answer the question 'Why and how does strategic choice constrain organisational development?' The analyses in Part III of the thesis show that strategic choice as well as corporate intent are shaped by practice and the organisation's ontological assumptions.

3.4.4 Evaluation

The sentiment embodied in Thorngate's "impostulate" (1976: 406) is a useful way of seeing an inherent compromise in trying to achieve simultaneous generality, reliability, and validity. In his assessment of the extent to which social behaviour is shaped by a given historical

context, Thorngate suggests that "it is impossible for a theory of social behaviour to be simultaneously general, simple or parsimonious, and accurate" (1976: 406). Drawing on Thorngate's ideas, information is most relevant in its own context, what Thorngate might call 'accurate', becoming increasingly inaccurate as it is separated from its context. Here 'accurate' does not mean getting the facts of some objective and concrete reality. Instead it means building an account that as far as possible reflects interviewees' meanings and understanding of their situation.

With regard to generality, the three case studies could not be selected as statistical representatives of a population. Indeed, trying to draw general conclusions from the three cases might compromise individual accuracy. Furthermore, to achieve simplicity or parsimony means making judgements about what information to include and exclude, and deciding how to structure the case story is also part of this process. Achieving simplicity could compromise generality and accuracy.

Thorngate's impostulate is a valuable way of articulating the constraints surrounding the research process. Indeed the tensions between accuracy, parsimony, and generality highlights the centrality of judgement making in the analytical process. Thorngate does not appear to distinguish between statistical and theoretical generality. Interpreting Yin's ideas on generalisation (1984: 39), the appropriate frame of reference for this research is how well the cases support theory, rather than how representative they are of a population. "If the reality of the case does not confirm the theory, then the theory must be adjusted ... the theory paves the way to generalisation" (Hertog, 1994a: 12). Indeed Thorngate's (1976) own argument and conclusion as presented are better described as generalising to theory than statistical generalisation. Clearly, a consequence of distinguishing between statistical and theoretical generalisation is that validity must also be seen as either statistical or theoretical.

There are strengths and weaknesses in studying multiple versus single case studies (Hertog, 1994a: 8). The triangulation of studying more than one organisation (Fox's {1990} space triangulation, or Easterby-Smith *et. al.* {1991} data triangulation) improves robustness of the research design, but does not offer a universal improvement of validity, reliability and

generalisability. The variety of situations offers an opportunity to improve generalisability to theory (Yin's external validity, 1984), but this variety also makes it more difficult to support an argument that is consistent and coherent across all three cases (Yin's internal validity, 1984), which seems to echo Thorngate's proposition. The extent to which each organisation may accept the account written from their perspective, as well as my analysis is perhaps another measure of the validity of the research. Nevertheless space triangulation is useful because it enables comparative analyses. It reveals diversity of social behaviour, and provides scope for drawing similarities.

Triangulation of theory (Easterby-Smith *et. al.,* 1991) has been very useful in shedding light on various aspects of the research space. In particular, Douglas' (1982) 'group/grid' construct developed from studying primitive communities has helped make sense of the differences in organisational strategy practice in terms of alternative social realities. The analysis of organisational social reality in chapter 10 is based on Douglas' social anthropological studies. Similarly, studies from the sociology of knowledge has helped explain the socially constructed nature of strategy practice and the uncertainty surrounding innovation processes, and these concepts underpin the analyses in chapters 8 and 9.

Reliability is problematic since, as with an experiment, it implies that other researchers should be able to replicate one's results by following the same procedures. It is questionable how far such an expectation is appropriate in a phenomenological study where the researcher has considerable scope to interpret the evidence; each researcher draws on a distinct range of knowledge and capabilities. Furthermore the evidence itself - social relations and situations - remains dynamic, as does its relation to the researcher. Perhaps because of these difficulties, rather than inspite of them, the solution is to make the research procedures as transparent as possible, accepting that both knowledge and the social context that gives meaning to that knowledge are not static phenomena, and that there will always be a tacit element that defies documenting. This is easier said than done. For example the periodic public arguments between competing research teams about the feasibility of cold fusion is in part due to the difficulty of replicating the first team's tacit knowledge. This is why I have chosen to

describe the formal procedures followed, as well as reflect on that process. The reflections represent additional markers along the journey that researchers may use to assess their progress. This is further enhanced by examples of issues taken from the three cases.

3.5 REFLECTION

3.5.1 The research process

The choice of research questions reflect my personal experience as a practitioner, plus some of the literature on strategy and innovation, and discussions I took part in during the first year of the research.

Different aspects of my research questions seemed to be in danger of evaporating throughout the fieldwork. For example, many of the issues around the research questions were not important to interviewees. I continually had to balance forcing the discussion to comply with my assumptions and biases, and allowing the interviewees to develop their accounts in their own terms. Managing the interview in this semi-structured way was necessary since I was trying to elicit the meanings interviewees attach to the notions of strategy and innovation. In this respect my questions were a starting point and not an attempt to test any theories (Hertog, 1994a).

At other times interviewees would try to give the kinds of answers that they thought I wanted to hear. They wanted to get the answers right, or to demonstrate their knowledge. For example, on more than one occasion when asked to explain what they thought strategy or innovation meant, interviewees seemed to give a tentative answer and wait for some sign of approval from the interviewer. This was usually countered by reassuring the interviewee that there was no right answer, and that what really mattered was their understanding of such terms.

The detailed research questions were to some extent always negotiable but I did not expect the richness and variety of interviewees' answers; the variety in their interpretations of the

questions. Over the nine month interview period, themes and patterns began to emerge, although at times I felt saturated with information and ideas. As the interview programme progressed to completion I felt that I had valuable material that did not conform with my prior conceptual frame. Although I heard my supervisors when they suggested that many of my underlying assumptions about the nature of strategy might be brought into question, I was not prepared for the confusion that was emerging between my assumptions and the richness of possible themes. Furthermore, there were more topics covered by the questions than could be adequately addressed in a one or two hour interview. I began to appreciate that more than one thesis lay in the answers to my list of questions!

Starting during the fieldwork I entered a period of intellectual struggle that has led to significant changes in the way I conceive of strategy. The struggle was between trying to remain open minded to empirical data on one hand, while on the other hand I was unconsciously committed to particular epistemological and ontological assumptions. I began to review my own assumptions about the nature of strategy and reality. I could not organise the evidence without acknowledging some conceptual framework. At the same time pieces of a conceptual framework were emerging but the overall shape was far from clear. The result was a confusion that was evidenced in my attempts to write coherent accounts from the perspective of interviewees. Writing an account without some intellectual framework meant that separating relevant from irrelevant information was chaotic, and one could produce accounts with differing emphases from the same material.

The confusion is clearing through discussion and the parallel writing of case study material, analysis, and research design. This process appears to be a tangle involving both deduction and induction. It is inductive in the sense that I am trying to generalise to theory from the specific case studies, and am making sense of the fieldwork in terms that I had not conceived of beforehand. The process is deductive in the sense that I am trying to adapt and construct theory to the specific cases.

A common objection to induction is that there is no such thing as unbiased observation (Phillips and Pugh, 1987). While accepting this principle, my experience in this study is that

despite my consciously prepared conceptual filters, a different and unexpected picture did emerge, and my conceptual filters are being reshaped. The analytical perspective taken in Part III of the thesis represents a synthesis of empirical data and the re-visiting of various ideas in light of that fieldwork evidence, and vice versa.

3.5.2 Have I done enough?

The intention in this study was to build a picture at the level of individual interest groups within the organisation, for example the main departments of Sales, or R&D, and compare their practice of strategy, and compare their perceptions of the whole organisation's strategy. This would enable intra- and inter-organisational comparisons. In addition, I considered supporting the interviews with the techniques of cognitive mapping and shadowing of some interviewees, but these latter two techniques were abandoned before they were used, because the reality of fieldwork proved quite different from my expectations. Indeed the gap between what was desired and the reality of what was achievable showed a very poor understanding of the resource implications of achieving the desired.

Firstly, it was clear that cognitive mapping and shadowing of three, or even one organisation, would take more time and money than was available. A pilot exercise of cognitive mapping showed that it was not a straightforward technique, and would demand considerable skill and experience to exploit. I judged that this was not the occasion to start developing the requisite skills. Shadowing required extensive periods on site (days at a time) and this was not practical. In the case of AT this would have required much international travel, with major cost implications. In other words, while the additional material would be useful, there were also real resource limitations.

Second, the achievement of a quantitatively comprehensive coverage of all interest groups or constituencies, would require a very large number of interviews because potentially many interest groups come together at many levels of analysis. Apart from functional groupings, there are other internal groups (working parties, task forces, committees); external groups

(competitors, customers, suppliers); and groups that cross the organisational boundary (standards committees, collaborative programmes, formal and informal relationships among professional groups such as sales and engineering). Some of these groups are long standing but change membership at irregular intervals, while other groups are temporary (Sluijs, 1994).

Many of the interviewees did belong to a number of groups, and it proved difficult or even impossible for them to wear one hat only during the interview. Some interest groups were loosely coupled networks (customers/sales/technical support), others tightly bound hierarchies, for example physically close teams in BoS's Branch Staff support, and AT's network monitoring room. Some interest groups are closer than others to particular strategy issues, while the relative importance of issues change over time. This would happen during new product introductions for example. In focusing on the 'elements' of the whole there is also a danger of failing to see how the elements fit into the whole (Hertog, 1994b).

In dealing with this multiplicity and inseparability of groups the important issue was not to find a way of representing their number, but to explore differences and similarities of meaning, both within and across the three organisations. Since the interviews were semi-structured using open ended questions, the nature of interviewees' relationships with others in the organisation and their understanding of their organisation's strategy processes could be examined. In exploring differentiated meaning I sought to do as Faulkner and Senker did in the design of their study of linkages between public sector research and industry: "important issues were addressed from ... different angles so that any inconsistencies or ambiguities arising could be examined" (1994: 676).

Third, and related to the previous point, since it was impractical to separate out interest groups, the question arises as to whether my range of interviewees is sufficient. I believe that within the constraints of resource (time and money) and access (it varied), the interviewees have qualitatively represented the views of enough constituencies to negate the potential weakness of quantitative representation. This judgement is based on my observation that in each organisation I reached a point where the interviewee would suggest speaking to an

individual that I had already interviewed or planned to interview. Another sign that enough evidence had been collected was my sense that additional interviewees were increasingly confirming more than introducing new material to my understanding of their differentiated views on their organisation's strategy.

Fourth, in all three organisations I aimed to get a fair representation of the views of those with influence on strategy making. This resulted in a wide variation in the number of interviewees per organisation, from ten to twenty four. This difference worried me for some time. Should I find more people to talk to, or had the interview programme in the BoS reached a 'natural' closure? Should I go to the USA and talk to the Engineering Design people of AT, or would the views of UK based staff suffice? Have I talked to too many people in the OBS, in effect wasting effort?

Behind my concern was the assumption that I should speak with roughly the same number of people in each organisation, to maintain the validity of the research design. I did eventually conclude that this assumption was simplistic, and that the variety of numbers in itself was evidence of the different approaches of the three organisations. For example, at BoS I studied decision making at the level of the Bank of Scotland Clearing Bank. At this level the main interest groups meant the Divisions reporting to the Bank, and in particular their General Managers and Deputy General Managers. I also interviewed an additional three junior managers within the Management Services Division (MSD). MSD is the Bank's R&D house, responsible for applying IT expertise to meet the needs of the Bank's Operating Divisions. I wanted to compare the views of more junior managers in MSD with the views of the Bank's Divisional managers, seeing this as a way of combining some depth with breadth.

Power and influence (both formal and informal) in the Bank was concentrated in the Management Board, constituted of the Divisional Managers. More junior staff had a very narrow view of either their Division's or the Bank's approach to strategy development, and deferred questions about the Bank's strategy up the hierarchy. All Divisional Managers had previously been responsible for one of the other Divisions, and had been reshuffled during the last twelve months. In most interviews these managers compared their current position

with their previous responsibilities. Such reflections allowed limited comparison between General Managers' views of each others positions. It showed that they held in common, or had the opportunity to share, a range of different experiences of managing the various Divisions. These Divisional General Managers had more in common with each other than each had with their subordinate managers in their respective Divisions.

As mentioned earlier,[1] access to strategy making in OBS was very open, while in BoS it was concentrated among a few at the top of the hierarchy. It is this variety in approaches to strategy making that results in the variety and numbers of interviews in each organisation. Having said that, I am conscious that I have also made a judgement, in consort with the organisation's interviewees, about where to draw the line that effectively includes and excludes contributors to the interview programme.

3.6 CONCLUSIONS

The research process as a whole is only linear as a rational reconstruction of history. In 'real time' I experience it as a mixture of muddling through and cycling back, making intuitive leaps between writing methodology and doing analysis, all within a broad framework of accepted procedures called a research proposal, that is itself somewhat fuzzy to the new researcher. Perhaps significantly, this also seems to describe the nature of strategy.

As noted earlier one important feature of this research is that the initial research questions were supplanted by new questions that arose in thinking about the empirical data in light of chapter 2 and vice versa. Chapter 2 remains an important marker for two reasons. First, it identifies the mainstream thinking on strategy, and second, it provided me with the opportunity to assess its analytical value in light of fieldwork. Keeping the arguments in chapter 2 separate from those in chapters 7 to 10 seems an appropriate way of highlighting the shift in my epistemological position, from a positivist to an interpretive perception. The focal issues identified within the original research questions proved to be a starting point

[1] 3.4.2 Sources of evidence: variety in organisational attitudes to access.

rather than a defining framework, for both the collection of evidence and its analysis. Part III of this thesis gives an account of my subsequent understanding of the nature of strategy practice. The account is not offered as the 'correct' way to make sense of strategy practice; it is offered as my interpretation and expression of the relationships between events and situations that make up the empirical evidence.

My intentions were ambitious for the limited resources available: one person, a few months, no experience of the research process, and limited funds. The scope of the research questions could without difficulty support more than one PhD; the range of questions could not be adequately addressed in a one or two hour interview, and cognitive mapping and shadowing were necessarily dropped. This represented a learning process in itself, about having to make choices where the practical diverged from the ideal.

There were other areas where I have had to make choices in my research method, recognising that there is often a gap between the "theoretically desirable ... and what is practically possible" (Buchanan *et. al.,* in Nelson (1990) unit 1: 18), and have been opportunistic. For example, I wanted to gain access to organisations without using personal contacts, because I felt this would add credibility. I could somehow claim greater objectivity through the absence of familiarity with any of the organisation's members. In the event I gained access only to those organisations where I had personal contacts. This also meant that interviewees who knew me, whether directly or through my contact, were more inclined to be candid and open in discussion.

Finally, to stress a point raised earlier about generalisability, the aim of this research is as Van Maneen describes qualitative research: "to describe, decode, translate and otherwise come to terms with the meaning, not the frequency, of certain more or less naturally occurring phenomena in the social world" (Easterby-Smith, *et. al.,* 1991: 71).

PART II

The Case Studies

Introduction to Part II

Part II consists of the accounts of three organisations that form the basis of my fieldwork and thesis. The three organisations are: Ascom Timeplex, the Bank of Scotland, and the Open Business School. The purpose of these accounts is descriptive rather than explanatory or exploratory (Yin, 1984), and this distinction defines the range of appropriate structures. An 'unsequenced' structure (Yin, 1984) is used here meaning that the order of the sections is not critical. Each account is divided into six areas: history and size, work organisation, strategic aims, strategy processes, innovation, and conclusions. While an unsequenced structure might imply that the evidence is easily compartmentalised, personal judgement has played a significant part in the composition of these accounts. Where an account could be made more clear by respecting some chronological order between particular parts of the account, then this has been done. While most material divides easily into separate areas, some evidence seems to fit more than one area. For example, while innovation is described separately, it also features in various other sections. Furthermore, not all of the evidence is included in each composition where such evidence was judged to be repetitive or irrelevant; the account had to be of readable length.

All three profiles in Part II show how managers think about and practice strategy and innovation in their own organisation. These profiles have been built primarily from individual in-depth interviews with staff from the main functional areas across each organisation. Some of the picture has also come from direct observation, documents publicly available, and from internal documents made available to me.

Access to the three organisations varied in important ways, and this experience in itself goes toward understanding why these organisations differed. Access to the Open Business School was unrestricted. I was able, if not encouraged, to talk to many people, and internal memos and files were made available. Access to the Bank of Scotland was also good, but I was not allowed to attend management meetings because of customer confidentiality, and probably because of the Bank's general reluctance to allow outsiders into such fora. Access to Ascom

Timeplex UK was good too, but time and expense prevented access to R&D and manufacturing staff in the USA.

All organisations are in a state of transition, and these three are no exception. Timeplex is in the process of evaluating its performance and work organisation, and implementing fundamental changes to its structure and the range of technologies that it will draw on in the future. The Bank of Scotland is in turn making radical changes. For example the role of the Branch is being changed from a place to carry out financial transactions to a sort of financial services shop, and more emphasis is being put on telephone and other remote access technologies for financial transactions. The Open Business School is assessing the areas of electronic communications and storage media, and experimenting with innovative ways to deliver distance learning courses.

These are long term projects, intended to produce fundamental changes and improvements to these organisations' competitive positions, and their exact nature will evolve as the projects progress. This means that much of the detailed case material gathered and presented here has a shelf life and the accuracy of some of it will gracefully degrade over time. Nevertheless, there appear to be enduring features of the practice of strategy that are unlikely to disappear with these fundamental changes, and these enduring features are drawn out in Part III. For example, chapter 10 'plural social realities' presents a brief and different account of each organisation, aiming at explanation and exploration rather than description. The reader is encouraged to compare the accounts in Part II with those of chapter 10 as a way of assessing the explanatory power of the latter.

4

Ascom Timeplex

4.1 INTRODUCTION

The story focuses on strategy practice within Timeplex Inc., from the perspectives of eleven UK based managers and engineers, interviewed during the summer of 1994. As discussed earlier (3.4.2), these interviewees either manage or are regarded by their peers as playing a key role in the performance of the main functions of General Management, Sales, Customer Support, and Human Resource Management (HRM). The account also draws on publicly available information, including newspapers and company brochures. Other information on work organisation arrangements were provided by the interviewees. This account is divided into six areas: history and size, work organisation, strategic aims, strategy process, innovation, and conclusions.

The account highlights the extent to which the practice of strategy is shaped by an individualistic and territorial view of the world. In this world embracing risks rather than avoiding them, and a preoccupation with the use of power and influence is a way of life.

4.2 HISTORY AND SIZE

4.2.1 Ascom Group

The parent of Timeplex, the Ascom Group, is very young, being formed in 1987 from the merger of three Swiss telecomms companies; Autophon AG, Hasler Holding AG, and Zellweger Telecommunications AG. Initially the Group consisted of four business divisions: Corporate Networks, Public Networks and Mobile Radio, Terminals, and Diversified Operations.

Ascom is proud of its record of growth through technological innovation:

> Targeted expansion and diversification have led to an impressive growth in sales world-wide. Major strategic alliances have strengthened the group's capabilities and competitive position.
>
> At a time of rapid technological change, Ascom continues to invest a substantial proportion of its turnover in research and development. This reinforces the group's reputation for high quality products and service which has been built up over many years *(Ascom: A Company Profile, ref. AUK/4/93)*.

4.2.2 Group financial performance

Soon after its global launch Ascom began struggling to deliver on its promise of growth:

> The directors admitted the group, a merger of three domestic suppliers, had make a significant strategic mistake in trying to become internationally competitive in too many product areas. The dash for growth detracted from the important task of unifying management from the predecessor companies, so when in 1992 many operations turned sour and liberalisation cut into sales to the Swiss PTT, Ascom was slow to retrench ('Ascom slides deeper into the red', *Financial Times*, 26.4.94).

Due to mounting losses (in 1992 -SFr. 46.4m, 1993 -SFr. 336.7m), the Group reorganised into three Divisions; Telecommunications, Enterprise Networks, Service Automation, and took a minority stake in two joint ventures; Public Networks with Ericsson and Radiocom with Bosch (Fig. 4.1). In addition the Group sold "peripheral activities, such as cable television, hearing aids and microelectronics components". ('Statute change makes sale of Ascom stake likely' *Financial Times*, 8.3.94).

As part of the Ascom reorganisation O'Connor was recruited to the position of President of Timeplex, a self contained organisation within the Ascom group with global aspirations. The business of Timeplex Inc., amounting to annual sales of about £300m in 1993, is the sale of data communication equipment, telecomms networks, and supporting services. The USA accounts for about 70% of product sales. Outside the USA, Europe is the next significant territory, and within Europe the UK turnover of £35M accounts for about 70% of sales. Timeplex UK employs about 150 people.

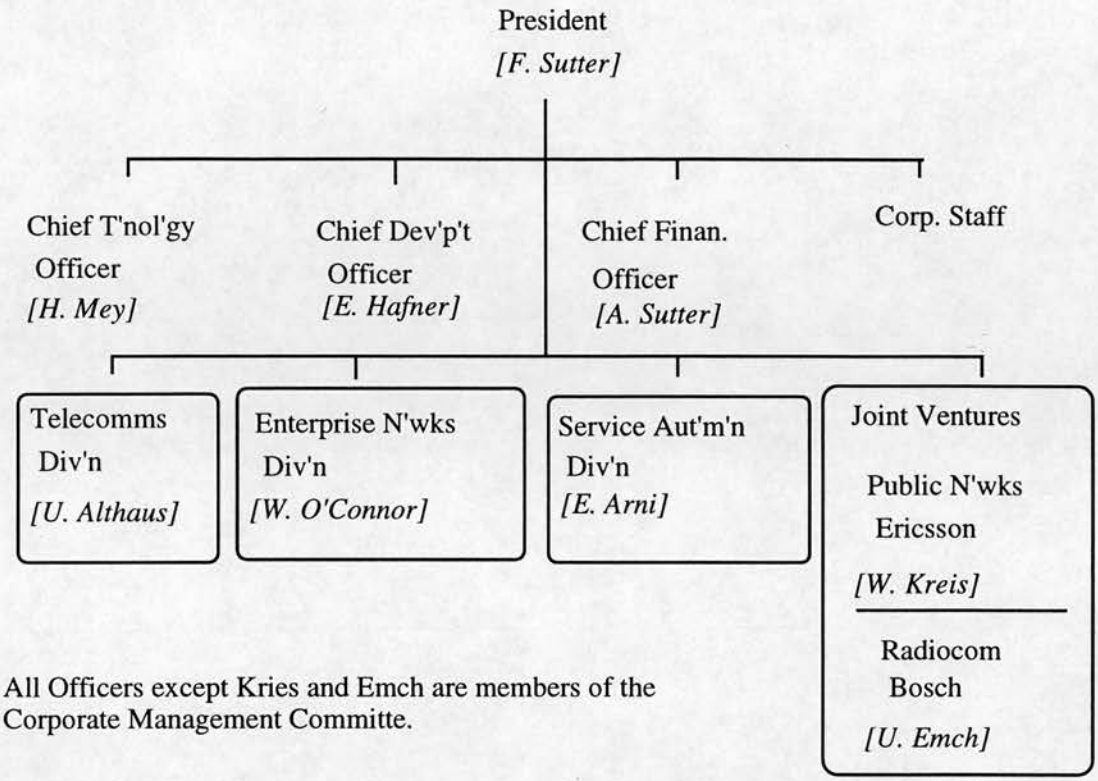


Fig. 4.1 Ascom's re-organised Divisions (April 1994).

Timeplex's main market is financial services organisations that have trading offices around the world, such as banks, share trading houses, and insurance companies like TSB, Baring Securities, and Hoare Govett. Timeplex also markets its services to the growing number of organisations that are 'outsourcing' the management of their own telecommunications networks, in particular, monitoring, maintaining, and upgrading their systems as necessary. These organisations have internal national and international telecomms networks linking their many offices around the world, and they are looking for ways of reducing the overhead of a networks management department. National telecomms carriers like British Telecomm also use Timeplex products as part of their own portfolio of products and services. Timeplex claims that "25 of the top 100 companies in the UK, and over 2, 600 organisations world-wide ... rely on Timeplex solutions" *(Ascom: A Company Profile, ref. AUK/4/93).*

4.2.3 Timeplex UK

Timeplex Inc. has offices around the world, of which Timeplex UK is the biggest outside of the USA. The ambience of Timeplex UK is that of a modern American high technology company, but without any American staff. The staff are young: secretaries, administrators, technicians are in their twenties and thirties; senior managers are in their thirties and forties.

In keeping with the fashion among many 'hi-tech' American companies, everyone dresses formally, except on Fridays when everyone 'dresses down' by wearing casual dress. The offices in Langley, Berkshire are modern red brick and glass on four floors, and office space is a mix of open plan and one-person offices for managers. The car park around the main entrance is full of upmarket company cars. Furniture is modern upmarket work stations and executive desks, and modern leather couches in reception. Managers have a good range of executive toys in their offices, everyone carries a pager and, depending on position, a notebook computer. All staff carry a 'smart card' for identification and access to the building. There is no restaurant or other common eating place where staff may congregate informally. Lunch means bringing your own sandwiches, or buying them from the vending machines provided, or going to a local restaurant. A non-smoking policy has been imposed, with the result that the smokers can often be seen congregating just outside the front door or, if it is raining, huddled under cover outside the building.

4.2.4 The good and bad old days

Timeplex Inc., with headquarters in Woodcliff Lake, New Jersey, began as a private venture in the USA around 1969, manufacturing and selling modems. None of the current staff have been around for more than about 15 years, but a few remember how Timeplex entered the market with one modem product called Link, providing Wide Area Network (WAN) integration of voice, data, and image over a network. By current standards Link is regarded as very basic, but when it entered the market in the early 1970s there was nothing else to compare. It was so successful with financial houses that Timeplex could not make enough of

them; "we were making so much money it was coming out of our ears" *(Oattes, UK Field Service Manager).*

However, things began to change when UNISYS bought the company. Interviewees remember that during the 1980s UNISYS was struggling financially, and acquired Timeplex because it was a very good cash generator. UNISYS closed Timeplex's UK R&D facility in Langley to "make sure that it squeezed every drop of revenue" from Timeplex's existing product range. The company was eventually bought from UNISYS about five years ago (1989), and became Ascom's Corporate Networks Division, renamed Enterprise Networks under the reorganisation. Some say that UNISYS sold Timeplex because it was no longer generating cash; that UNISYS had drained Timeplex and sold the empty carcass.

From having the only multiplex product in a new market, Timeplex today is far from being in a commanding position, both in terms of market position and technological edge. Their largest competitor, Newbridge Inc. made more profit in 1993 than Timeplex's turnover for that year. Today many customers' engineers talk disparagingly about some of Timeplex's products, describing them as 'steam driven'. Although Timeplex Inc. changed ownership, and Ascom seems to be investing heavily in Timeplex, the UNISYS closure of the UK R&D facility has so far not been reversed. Most UK managers and engineers regard a UK R&D and manufacturing capability as necessary for a revival of the company's fortunes. They feel that a UK based facility would give them more credibility with the UK and European market and would allow them to respond more effectively to local market conditions.

4.3 WORK ORGANISATION

Timeplex Inc. has its own operational facilities in Sales, Customer Support, Manufacturing, Engineering Design Centres, and its own divisional supporting functions of IT, Finance, and HR (Fig. 4.2).

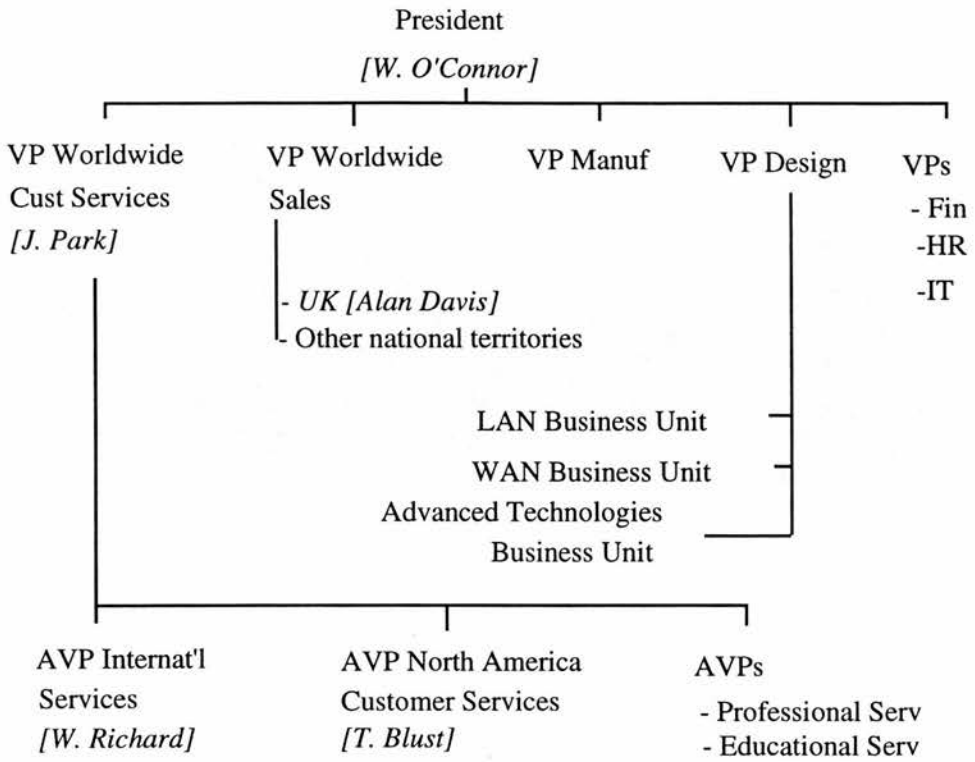


Fig. 4.2 Timeplex Inc. organisation (April 1994).

4.3.1 Two empires

Timeplex Inc. derives income from a mix of product sales, customer technical support contracts, and the sale of Professional Services. The last source is very small and represents a hope for the future rather than a pillar of current income. Timeplex UK is essentially responsible for Product Sales (Fig. 4.3). The Customer Support function while sharing the UK offices is directly responsible to the International Assistant Vice President of Customer Support, W. Richard (Fig. 4.2).

4.3.2 Product Sales Division

The UK Managing Director, Davis is responsible for sales, marketing, finance, and HR (Fig. 4.3), and reports to the Vice President of Sales who resides in the USA. The sales globe is divided into a mixture of nationally based Timeplex sales offices (UK, Germany, France, Belgium), Distributors (e.g., The Netherlands, Italy), and Affiliates (third parties) such as

Olivetti in Latin America. Customer Support are obliged to support the Sales organisation, but it 'cross charges' Sales for any services provided. The two reporting lines above S. Hammond show that she reports to the Financial Director for day to day operations, and to the VP HR (USA) for HR policy directives.

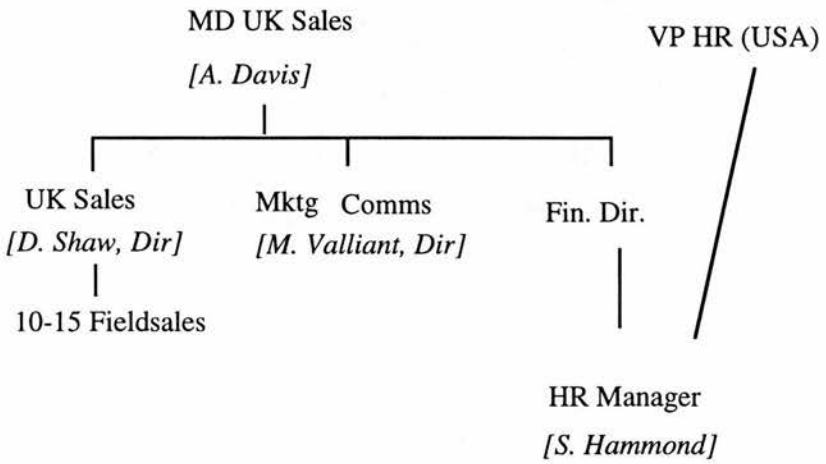


Fig. 4.3: Timeplex Inc. UK Sales organisation (April 1994).

4.3.3 Distributors and Affiliates

A small proportion of Timeplex's product sales is done through distributors. Distributors sell Timeplex products but generally do not provide customers with any technical support. Technical support is provided directly by Timeplex. Where Timeplex is not able to provide that support, such as South America, Affiliates are contracted to support Timeplex products.

Customer Support managers feel that Timeplex's competitive advantage is that it sells and supports most of its products directly, with distributors accounting for a small proportion of business. They hold that this advantage will help Timeplex re-establish itself. Indeed, Humphries, manager of the Customer Response Centre (Fig. 4.5) suggests that Timeplex's weakness may be that it uses distributors to sell its products, because distributors are generally not sufficiently competent to provide technical support. He thinks that "the expectations created by the sales pitch is sometimes not met by the realities especially in the multinational arena", where the customer is likely to have offices in parts of the world where Timeplex has no presence. Furthermore, supporting individual distributors world-wide by

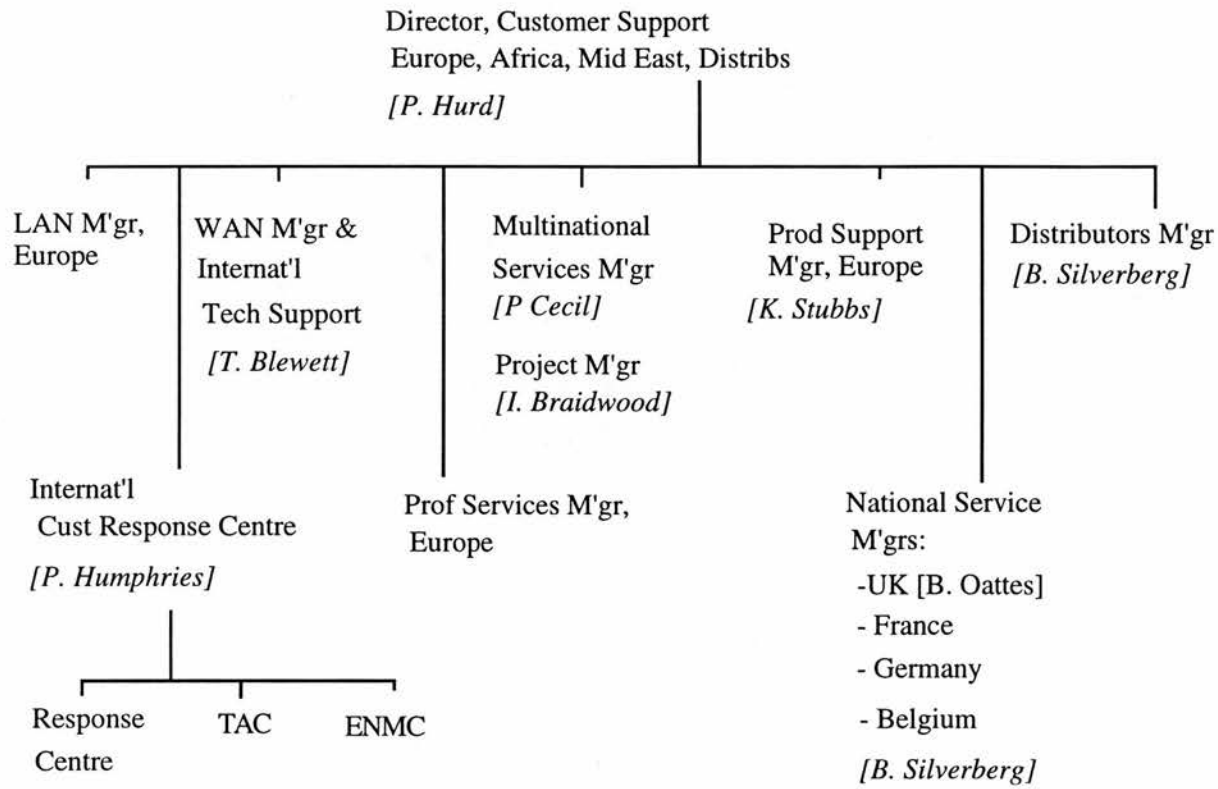
sending engineers at short notice half-way round the world is expensive. Instead, by contracting with an Affiliate to cover say, all of South America, Timeplex can save money by dealing with just one partner. Choosing a partner with complementary products and services, for example Olivetti, could also mean that the Affiliate's engineers can fix Timeplex's products.

While using distributors is viewed as a weakness by Customer Support, the Product Sales Division see distributors as a potential opportunity. Shaw, UK Sales Director, notes that competitors use distributors because of the high cost of dealing directly, especially the high technical support costs. He aims to increase product sales, and he sees distributors as an effective way of achieving that aim. He believes that Timeplex should make more use of distributors, because direct selling by Timeplex personnel is not cost effective in the new low value/high volume modem market. If Shaw's analysis of the new market that Timeplex faces is correct, then this competitive advantage is really a disadvantage. Clearly the source of Timeplex's competitive advantage is contested.

4.3.4 Customer Support Division

Customer Support is Timeplex's other main income source. Its head office is in Clearwater, USA, and is divided into three geographic regions: the Americas; the Pacrim (Pacific Rim); and Europe, the Middle East and Africa (Fig. 4.4). The markets in the Middle East and Africa are very small so these regions are 'bundled' with Europe for geographical convenience. Hurd, the Director responsible for Europe, Middle East and Africa, is based in the UK, and manages a budget of about £22M. He reports to the Assistant Vice President of International Services, Richard, who is based in Clearwater. The 'Europe, Middle East and Africa' Customer Support Division consists of ten teams or departments (Fig. 4.5). Four of these are national Field Service operations of which the UK represents the largest commitment of resources. Three are business channels (distributors, multinational projects, European Professional Services), though this latter is likely to be scrapped. The other three departments are: Technical Services, the Customer Response Centre, and European product support.

Fig. 4.4: Timeplex Inc. world-wide Customer Support organisation (April 1994).



Notes.
Ian Braidwood is also Manager of Escalations for which he reports to Patrick Hurd directly.

Phil Cecil 'shares' his reporting between Patrick Hurd and Gail Neidinger, Director of Multinational Customer Support.

Fig. 4.5: Timeplex Inc. European Customer Support organisation (April 1994).

Customer Response Centre

In about 1993 Richard introduced his vision (or strategy) described by Humphries as 'move with the Sun'. It was to consist of three global remote Customer Response Centres at Clearwater, USA; Langley, UK; and Hong Kong. The aim was to provide a full 24 hour support service for customers who have operations in all corners of the globe. Humphries thinks that Richard was advised by the external consultants, Booze, Allen, Hamilton to set up the global response network. According to Humphries it is a tried and tested approach used by others, and these consultants would have got the idea from talking to people in Timeplex and its competitors.

Richard gave Humphries the freedom to achieve the 'move with the sun' vision as he saw fit. Humphries reorganised his department at Langley, creating three task units, reflecting increasingly sophisticated levels of technical support. The least technical is the Response Centre where initial calls from customers are taken, and where the need for an engineer to visit a customer site normally originates. The next level of technical sophistication is the Technical Assistance Centre (TAC), which provides customer engineers with technical support by telephone.

The third and quite embryonic task unit is the Enterprise Network Management Centre (ENMC) which provides new services to customers. Before ENMC existed, technicians rotated through a variety of tasks, of varying level of complexity. Richard's vision enabled Humphries to group the tasks into TAC and ENMC. Humphries said that "the job became too wide, so a strategic decision maybe was we need to do it in a different way, so we evolved in that way". The technical problems being dealt with were perceived as sufficiently numerous and different to warrant their separation.

Customers that manage their own networks will call on Timeplex for assistance from time to time, and TAC staff support them. However customers increasingly were asking Timeplex to take on the whole job of managing their networks on their behalf; from straightforward fault management, to network performance measurement (failure rates, locations, nature of faults,

etc.); to configuration management (say, adding to or changing the network to accommodate new offices). This work involves engineers using electronic equipment to directly monitor customers' networks with little or no telephone interface with a customer; this is the work of ENMC. Sometimes customers, like Sun Alliance, manage their own network during office hours, supported by TAC, and hand over to ENMC after office hours.

Humphries sees the core business of the Customer Response Centre as the three areas of fault management, performance measurement, and configuration management. He thinks that his three tier system is what is required to support the core business, but feels unable to staff the TAC and ENMC units to the level that he feels is necessary for a good 'quality' service, because he has been told that he "cannot have more heads"; he is expected to achieve Richard's vision without extra resources.

In Humphries' view, achieving Richard's vision did require a change in the way that certainly the Langley Customer Response Centre has operated. Historically a skeleton TAC staff have been "at their desks" during the evening and night, which requires extra staff and carries overtime payments. Under the new strategy, Humphries will concentrate his TAC staff during the day shift, which is when their services will be in greatest demand, and will not put any "expensive TAC engineers on night shift". Any calls after the day shift, requiring TAC support will be diverted to either Clearwater or Hong Kong, whichever is in daytime shift. Twenty four hour global TAC coverage will be maintained by seamless hand-overs between the three centres.

In addition to responding to customer needs, Richard's vision can generate savings. However, the implementation of Richard's strategy of moving with the Sun is going to take some time according to Humphries. Many staff had misgivings about the strategy. They were afraid that jobs at Langley would be lost if another centre were set up in Hong Kong. Humphries argues that the threat is not that another centre will open, resulting in less work overall, but that there will be a change in the mix of competencies required at Langley, toward fewer TAC staff and more lower level qualified technicians to deal with the customer initially. In Humphries' view this change cannot happen immediately. "I couldn't do that

today, it wouldn't work, I mean I can't just get rid of history, well qualified people in here". He prefers the longer term approach of recruiting less technically qualified people to replace some of the expensive TAC people as they move on.

For historical and cultural reasons there is a small Customer Response Centre in Paris. Humphries believes that in order to get French business, potential customers, say France Telecomm, will want to see a local demonstration of capabilities. He thinks that "big plushy offices in Paris are going to be more convincing and impressive than some outfit in England, somewhere near London". Furthermore, Timeplex's ability to sell more services across Europe will depend on being able to demonstrate capability locally as well as being able to provide global coverage. Humphries is not sure how Richard intends to reconcile this need for local Centres with his three hubs concept. As Humphries noted,

> the story that Richard is selling to the world is that there are three centres; Hong Kong, Clearwater, Langley. All the other centres like Paris may satisfy the local cultural needs, but they don't form part of this shell, which should never be replaced.

4.3.5 New product introductions

All R&D takes place in Engineering Design Centres in the USA. R&D facilities in the USA are divided geographically (Acton, Massachusetts; Woodcliff Lake, New Jersey; Dallas, Texas; Westwood, California). This geographical spread is the result of acquiring established facilities, through buying small companies. Their location is not determined by Timeplex's production arrangements, nor its markets which are in any case global.

UK staff seem to know little about what goes on in each Engineering Design Centre, except Woodcliff Lake, which is the main contact for UK personnel for product development issues. Nor do they know how these Centres fit into the rest of Timeplex. Each facility seems to have a different reporting mechanism, and differing product development priorities. Interviewees think that the extent to which the work of these centres overlap or diverge is probably knowm only at the apex of Timeplex Inc.

Woodcliff Lake has three Engineering Business Units, each focusing on one of three 'strategic communication technologies': LAN, WAN (or Transport), and Advanced Technologies. UK managers and engineers perceive that products are designed with the US market in mind, and then modified in varying degrees to meet European and other non US market requirements. Davis feels handicapped by having to sell in the UK, products designed for the US market.

All R&D and Manufacturing takes place in the USA. Perhaps new product development is 'market-led' for the local US market, and 'technology-pushed' with respect to Europe and the rest of the world, insofar as European customers seem to have much less influence on product design than US customers. However, the existence of differing communications technical standards between the USA and other markets means that a certain minimum compliance with local market requirements is necessary.

New products progress from Engineering Design to Manufacturing, then general release to Sales. Before a new product is released in the market, technicians from Manufacturing, Engineering Design, and Customer Support come together to form a 'staging process'. This is a post-production activity to test and prepare a new product for the field. Here technicians test whether the new product meets the intended performance specification, and try to simulate field conditions.

Stubbs, as European Product Support Manager, ensures that the European Customer Support engineers get sufficient training to support new products as they are taken up by customers. He takes his steer from Marketing, where he learns of planned new product launches. This triggers him into co-ordinating the necessary technical support. Stubbs starts by interpreting product design information to establish what function the product will perform. He is responsible for co-ordinating the European product release schedule, identifying any special equipment and tools needed, produce technical documentation, training courses, presentations, and lectures. He also "contributes to the installation and maintenance philosophy", which describes how Timeplex staff must manage the process of product support.

Before a new product emerges in the market place, Stubbs "looks at the strategy of supporting a new product, what the product does and how we intend to support it". He then prepares a Customer Support Plan (or strategy) in conjunction with European country managers. This plan is "The Bible", and is used to resolve customer support questions that cannot be dealt with within the framework of the escalation log and procedure. The escalation log is a prioritised list for dealing with customers' technical problems in an orderly manner. The Bible also contains a product overview, a list of departments involved with pre-sales installation, maintenance, and escalation paths, tools, logistics (identifying stock items and stock levels), reference documents.

The Bible is published during a window of time between a new product leaving Engineering and that product becoming generally available. During this window there is an internal release process where all departments are asked to assess their state of readiness to sell and service the new product. Any deficiencies in being able to support the new product must then be put right, "at least in theory", qualifies Stubbs, before the new product is shipped. All departments must then formally declare their "Ability to Support" the new product.

Another document, the Technical Service Guide, is also generated to accompany the new product. The Product Support group in Clearwater, with input from Stubbs, carry out a Serviceability and Maintainability Evaluation (SMA) where,

> they take a product, strip it down to its basics and rebuild it, a bit like a Haynes Manual for a car. We look at how long it takes, what's involved in loading new software, in changing various parts of the box, things like that, and this is all logged in a report. And that then goes to form the basis of a document called The Technical Service Guide which we issue to engineers, which when used in conjunction with the manuals helps them to install and service the kit, tells them how to take it to bits, various useful commands for diagnostics, cable diagrams, pin-outs, a listing of the hardware and software modules, revision levels, all that sort of thing *(Stubbs).*

4.3.6 Accounting for revenue

Departments accountable for sales and profit are described as Business Units. Engineering Design Centres, Manufacturing, Sales, and Customer Support are all Business Units, each

having a profit and loss (P&L) responsibility. This arrangement generates its own inter-departmental tensions and idiosyncrasies. For example Shaw, UK Sales Director, described the situation where if he were to ask Engineering Design for some particular feature to be included in a product, UK Sales would then be presented with a quotation for doing the work. Shaw finds this situation ridiculous. Shaw and Engineering Design are clearly working from different assumptions about how internal relations should be managed. Shaw is looking into the Timeplex hierarchy for a solution to his problem, while Engineering Design seems to be treating the relationship as a market transaction proposition.

As noted earlier, Timeplex Inc. has two main sources of income, the main one being Product Sales. Sales performance is measured in terms of 'sales order value'. The second income source is Customer Support, whose performance is measured in terms of contribution to overheads. That is, the price paid by the customer for technical support minus the cost of that support. Quite often Sales will call on Customer Support to visit a customer, perhaps to help secure some new business or keep some old business. Customer Support will 'cross charge' Sales for the visit, and show it as part of the Customer Support revenue. The Sales Division's 'sales order value' is unaffected by the internal 'cross charge'. In this situation Customer Support, and therefore Timeplex, appears to have generated additional income from an internal transaction.

Most of the Customer Support income comes from support contracts held with customers after the initial sale of products. This is recurring income with a life of five to ten years, depending on if and when the customer decides to update their system. Unless a customer replaces older equipment with Timeplex products, that recurring income is lost forever, or until the next time the customer decides to update. The initial product sale then is critical to any recurring revenue opportunities, and may go some way toward explaining the tension between UK Sales and Customer Support, discussed later.

4.3.7 Management information

Managers like Oattes, UK Field Services Manager, and Humphries, Customer Response Centre Manager, feel frustrated by what they see as severe weaknesses in the provision of accounting and management information. For example, apart from a few specific cases, they have little knowledge about how much revenue is generated through their departments' efforts. They also have little idea about the costs incurred because they leave the tracking of everything, for example overtime payments, to the accounting function. Nevertheless, every year as part of the budgeting cycle each manager has to project an expected annual increase in throughput and associated costs. The former they get by relying on the judgement of other departments, such as Marketing and Professional Services. The latter they get by periodically raking through the regular print outs, but they have no way of checking the accuracy of the information. Furthermore, managers regard getting sensible information from the reports as generally not a cost effective use of their time.

Humphries feels "encouraged", by his boss Hurd, to think of his department as a profit centre. He is pleased with this but the company's accounting conventions seem to be getting in the way. For example, the cost of sending Oattes' Field Services engineers to site costs about £8M p.a. and generates a healthy 54% margin. Humphries argues that his remote service engineers reduce the need for site visits, saving about £0.5M p.a., but there is no recognition of this, for example as some form of financial credit. Indeed the Financial Director regards Humphries' department as a cost centre.

So far the account shows a company with a dynamic and turbulent history: rapid expansion then a fight for survival caused by the relative decline in its capabilities, and exacerbated by technological advances and market growth by competitors. The division of labour between Sales and Customer Support, and its accounting practices and information management system are sources of tension and conflict. The following sections focus on how staff understand the company's strategy, and how they see the need and scope for innovation. Do

the tensions and conflicts already noted get in the way of strategy, or are they an integral part of the practice of strategy in Timeplex?

4.4 STRATEGIC AIMS

4.4.1 Ascom's aims

Timeplex does not appear to provide any separate public statements about its aims and competitive position. Ascom's *A Company Profile* describes the aspirations of the Group as a whole, and each company is identified in terms of its product offering. Timeplex is described in terms of its technologies and markets served. The implication seems to be that the Ascom's strategy applies equally to Timeplex.

Ascom's declared strategy seems multifaceted. One statement emphasises market growth: "further progress and growth in its core markets continues to be the group's essential business strategy around the world". Another statement in the same document emphasises innovation and reliability: "Ascom group's focused strategy wherever it operates, internationally, nationally, and locally" is to:

> respond to customers' needs with speed, high-level technical expertise, innovative flair, world-wide support services and - most importantly - with outstanding dependability *(Ascom: A Company Profile, ref. AUK/4/93).*

Clearly for Ascom market growth strategy and technological innovation, are inter-dependent.

4.4.2 Defining Timeplex's strategy

Shaw, UK Sales Director, is critical of Timeplex's corporate strategy. According to him, the Ascom directive to O'Connor of "growth before profit" may be fine in the old high value networks market place but not now. He questions the degree to which the USA corporate management understand that strategies for local markets differ from the US view of the world. In his view they are slow to recognise that high value contracts consisting of a few high value backbone nodes, say three or four, few sites to visit, and high margin maintenance

contracts, represent yesterday's market. Today's market is about connecting Local Area Networks, and Branch Networks, consisting of hundreds or thousands of low cost nodes, and scores of sites.

Shaw is also critical of other aspects of corporate strategy. In particular separate Service and Sales organisations; a direct selling approach in the market; the UK subsidiary having to refer back to an Engineering Business Unit for the price that may be charged in the UK's market place; R&D or Engineering business units performance being measured against P&L; and cross charging.

According to Shaw the new market requires new service skills (LAN, Advanced Technologies, remote maintenance rather than site visits) which do not currently exist in the Timeplex organisation. A growth strategy in the new low value/high volume market means developing partnerships with the major Carriers (BT, AT&T, MCI, Sprint). Shaw feels that locally he can influence strategy but this does not give him the leverage required to develop partnerships with the major national Carriers. This is the task of Timeplex Corporate, and his ability to influence their thinking is limited. He feels frustrated that his scope for managerial judgement is constrained. He "can't even hire another salesperson without going to a higher authority, to corporate HR or VP World-wide Sales". In his view,

> private backbone networks are becoming history, virtual networks from Carriers or managed services are establishing as the norm. Service revenue from the old Link product is falling, therefore the service revenue is at risk because Timeplex is a very small player in the new markets. Sales must be innovative in overcoming limitations in the product and service, and we have to be creative to manage the new market environment *(Shaw)*.

Today's customers are planning the replacement of their network systems around a five year equipment life. Being late with the next generation product, or offering a product which has no backward integration, or no migration path to other technologies (i.e. open systems architecture), means that competitors get the new business, both in terms of product and recurring Service revenue. In fact although Timeplex is catching up technologically, and has some new and very good products now, the market perception remains that Timeplex products are 'steam driven'.

Shaw sees the corporate strategy as being product driven, and Sales and Service following different and inconsistent strategies. Although the rhetoric is about building a business on Support, $50M is being spent on R&D, probably most of which is going on infrastructure costs such as better integrating the Engineering Business Units given that their activities seem to be uncoordinated, and very little on developing the company's Service capability. On Shaw's account corporate strategy is overly driven by Engineering Design, and the key departments of Engineering Design, Sales, and Customer Support, all seem to be operating independently of each other.

Shaw challenges the view that Customer Support really is trying to develop a global Customer Support network of Customer Response Centres. From his perspective the Customer Support internal reorganisation and redundancies is due to a preoccupation with reducing the cost of on-site visits, and being reactive rather than progressive.

Shaw's UK sales strategy is based on matching customer wants to Service backed up with product, because he believes in the primacy of Service, and that he has a better grasp of what that means than the Customer Support people. This sometimes means putting in a temporary product patch because the promised new product is late. The work of patching and substitution is done by Service engineers and cross charged to Sales as a 'cost of sale'. This, for Shaw, is an example of how Service seems to be profitable while Sales margins look poor in relation, and is often used by Customer Support as evidence to support the view that Service is the way forward for the organisation.

Davis, UK Managing Director sees strategy as "a pragmatic way of describing to a customer why he should do business with us; as a way of doing business". For example the strategy dialogue should focus on issues that a customer will be concerned about, like having "an upgrade path, flexibility in what system he [sic] buys, that the technology he is buying is not going to become obsolete [within the next five years], that he can bridge from one platform to another". Davis prefers to talk of 'philosophy' rather than 'strategy' and is a little dismissive of 'business plans' in the context of his current job. His job of generating sales is a numbers game and "you don't have to be a rocket scientist" to work them out. Business

plans are for when you have to control not just sales, but also product development, and support services, and he has no control over the latter two.

Strategy for Humphries is

> something that is planned, something that is public, and people understand it, and I don't think unless you understand the concepts behind it you've really got a strategy. So part of it is the communication of what you're trying to do. Making pronouncements that go into marketing brochures is not strategy. Richard can say that he has three Centres around the globe but in reality [Richard doesn't have a strategy], unless people make it happen *(Humphries)*.

Humphries reflects on how he went about interpreting Richard's 'move with the Sun' vision; tries to rationalise the process; and generalises about how strategy is formulated and implemented:

> Maybe it meets in the middle, maybe its something like the message comes down, reflects off the bottom of the organisation, and then they start asking questions to make the changes. And actually it changes, doesn't actually end up with what you'd originally planned, because people's ideas will change things *(Humphries)*.

4.5 STRATEGY PROCESS

4.5.1 Little value in formal forums

In common with his colleagues Braidwood, a Customer Support engineer, feels that "unfortunately we don't collectively discuss 'where are we going and what are we doing'".

By contrast, Smith, who describes herself as the "multinational document control person" has been with Timeplex for about two months, and her strongest image of how the company ticks is that people seem to "have meetings for just about everything under the sun. Everybody seems hell bent on meetings. Everywhere I look, people always seem to be in meetings, [especially] the higher level managers and directors".

Interestingly, Smith also thinks that one of the company's big weaknesses, and one that needs resolving, is a lack of communication among staff. People are left to get on with it, there is no team-work, and there is a lot of "finger pointing". She sees discontentment among staff as

a by-product of "their managers doing too much travelling, being away from their staff and losing touch with what is going on locally". She reconciles this view with her other observation about people always being in meetings by questioning the value of those meetings. Smith wonders what these managers can be discussing since no actions ever seem to spring from them.

Humphries feels that,

> we tend to be quite discrete in the way that we operate. If we have a sticking point it is that we don't communicate enough on group issues. There is a protectionism in there. *I'm making very much my own strategy* [emphasis added], I don't have the feedback [and] we don't have a forum that says 'right where are we going'. I might have one, Tony might have one, its very much opportunity, 'go here, go there', oh there's some business lets get that.

During the Spring of 1994 for the first time, a few UK senior staff and key people started meeting every Friday to discuss operational issues of the previous week. Topics seem to revolve around internal issues: the company car policy, pay, working conditions, progress on implementing a staff development scheme, and particular difficulties that individuals want to discuss. It seems that the initiative to hold this weekly meeting came from Hammond, the Personnel Manager, who needed to discuss a range of topics that had a common impact within the UK office.

Hammond too is critical of the quantity and quality of communication within the company. This is borne out as far as her own department goes. She has only a vague appreciation of how her peers in the USA work, even in terms of what might be regarded as core HR activities, like appraisal processes. She has never been to the USA offices to find out how they work. Her impression is that the only forum for discussing strategy issues seems to be at the very apex of Timeplex, and nowhere else.

Similarly from a European perspective, the mechanisms by which Engineering Design decide what product development projects to pursue seem ad hoc. Individuals may make requests directly, or through the European Product Support Manager who has a formal link with the Woodcliff Lake Engineering Design Centre. Beyond this link there seems to be no formal

mechanism, visible to UK personnel, for assessing and prioritising potential product development projects. There is no formal forum where UK personnel can discuss and agree with Engineering Design what products are required for Europe.

4.5.2 A premium on individual initiative and social networks

Davis, UK Managing Director, sees his job as creating the right environment for people to feel comfortable to challenge the existing ways; an environment of fear is not conducive to creative thinking. He is pleased to say that the current UK working environment is producing a sales growth of 50% pa, with productivity growing at 30%-40% pa. Having to maintain this without increasing "head count means that you must find ways to innovate, to do things better". Davis does not control the Customer Support staff, with whom he shares a building. Nevertheless within the whole Timeplex UK environment individuals seems to have significant scope to interpret, exercise and develop strategy.

Humphries does not know whether his TAC/ENMC strategy, is consistent with Richard's strategy of 'move with the Sun', or whether it would be acceptable to him. However, this has not prevented him implementing his ideas. For Humphries his strategy is a natural development for his department. Meanwhile he takes soundings on the acceptability of his implementation plans by writing to his boss Hurd, the HR Manager, and the Finance Director, outlining his plans and associated costs. It comes as no surprise to Humphries that weeks have passed and still no one has responded to his plans.

Humphries' view on the need to create TAC and ENMC seems to have been shaped by various forces, some internal and others outwith his department. As noted earlier, he and his colleagues recognised that the range of tasks his department was handling seemed to be expanding, and Humphries saw that a few of his engineers showed a particular talent either for ENMC or TAC work. There was also pressure in the form of "encouragement" from his boss to find new revenue streams. External pressure came from customers especially financial trading houses, wanting seamless access to the financial markets in North America,

Europe, and the Far East. They wanted global telecomms networks 24 hours every day. According to Humphries, Richard's vision provided an "umbrella", a legitimate space for him to realise his TAC/ENMC strategy.

Humphries recalls that the first he knew about the strategy of 'move with the Sun' was as at a presentation and dinner for senior managers, at which Richard presented his vision. Within the whole presentation was one slide about 'moving with the Sun'. This slide was interesting for Humphries since it bore directly on his area of responsibility. Until that moment he knew nothing about it. His response was to think,

> that's interesting, I'll ask him about that. So it was at dinner that night, and I said 'well ..., you know ..., when, how ...'. And he said 'well ..., as soon as possible, and you do the how'. ... I understood from our conversation how important it was to him. It wasn't just one slide, there was a lot more behind it *(Humphries)*.

According to Humphries, Richard did not present his 'move with the Sun' vision as a directive, with names, dates and actions attached. It was left to individuals to take up and interpret the vision. For his part Humphries thinks that Richard "is loose at the detail end, he is saying 'everything', but I think he means TAC operation".

Richard's vision presented an opportunity for ambitious individuals to make an outstanding contribution to Richard's vision and their own standing in the company. There is no intention to construct a hierarchy of interlocking strategies and sub-strategies, all pointing to one vision. Indeed Humphries' implementation of Richard's vision has implications that stretch beyond Humphries' department. For example, ENMC is an innovative service that the embryonic Professional Services might promote.

In pursuing individual initiatives, managers and engineers seem to give low priority to co-ordinating their actions. In setting up his department as TAC/ ENMC Humphries felt that it "probably didn't mean any change to [my peers'] organisation". He therefore involved them only as far as asking questions like "should [these changes] go up on the notice board?". There seems to have been no discussion about for example: how Professional Services might promote ENMC; how Professional Services and Sales relate since they could compete; or

how site visits by Field Services engineers might be affected by more remote monitoring; or whether he and his peers agreed on the significance of a TAC and ENMC split and therefore the need for "more heads". Indeed Humphries' peers felt that he should just get on with it, and not to seek their involvement.

While there seems to be little interest in co-ordination, individual initiative seems to draw heavily on social networks. Cecil's job as Multinational Projects manager described later rests on his adeptness at using social networks. Hammond acknowledges the utility of networks as a way of working. She thinks that people thrive on networking in the informal and unstructured Timeplex environment because rules are unclear and "they can dodge and weave, they can dodge around the rules because the rules are hard to police, and you're trying to police a lot of woolly rules".

There are also risks attached to networking. Hammond notes that Timeplex is full of "constituency builders who network a lot with people and they will use that, and they will often set rumours going because they want action". She gave as an example a rumour that certain people were to lose their jobs. The person responsible for starting the rumour was reported as saying that "rumours can become self-fulfilling". She would like to see more formal processes because she believes they would reduce the scope for networking, and thus bring more order to people's behaviour. Hammond's views are probably shaped by her previous work experience with Marks and Spencer, which is commonly regarded as a well organised business.

4.5.3 Flux is normal

Many interviewees describe their progress through the company as three months doing such and such, then "Tony asked me if I would be interested in doing so and so". Six months later another job, something else, and so on. Opportunities to display personal initiative are everywhere, and one may change jobs two or three times in a year, progressing from 'technician' to 'manager', sometimes carrying both functions, one as 'engineer' and another

as 'manager', as the next example shows. In Timeplex the title of manager appears to be a negotiable part of the remuneration and reward system, more than an immovable part of the organisational infrastructure and systems.

A new position, Escalations Manager, was recently created as a direct result of a customer contacting the Timeplex President to complain about an on-going installation problem. The UK Customer Support organisation does maintain a log of on-going installation problems, but this complaint suggested that not enough was being done to progress installation problems. Hurd as Director of European Customer Support wanted to act quickly and show that something was being done to prevent a repeat. Over the next few days, and some brief discussions with his managers and engineers, Hurd appointed Braidwood as Escalations Manager, reporting directly to him. Braidwood will at the same time continue in his designated engineering role within Multinational Projects. The escalation problem was speedily fixed and everyone moved on. Timeplex's review resulted in the creation of another individual responsibility, as opposed to say a rewriting of the established monitoring procedures.

4.5.4 Local versus corporate control

During one round of cost cutting measures about two years ago, the HR function was reduced to one person. Hammond, Personnel Manager, has been with Timeplex UK for two years, and in her present post for the last year. She is re-introducing many of the functions of HR, except that this time she is employing external agencies rather than employees. Agencies are being used to manage the more "concrete" tasks of building maintenance and car fleet management. She hopes to extend the same approach to those less easily measurable areas of assessment and training programmes. In addition to outsourcing most of the HR function Hammond is also trying to apply a unified corporate policy to the areas that departmental managers currently control. Traditionally departmental managers enjoy a great deal of autonomy across areas of training, pay scales and performance appraisal schedules, and car

policy. She believes that by showing how she can "add value" she will win credibility from the other managers.

Hammond's aim is "to put HR at the centre of strategy formulation and implementation", but HR is seen by some key managers as very low status in Timeplex UK, and many regard her as "interfering" in their areas. Her power base is regarded as unclear because she reports to the UK Finance Director on day to day issues, and to the Vice President HR in the USA for policy issues. The latter is known as "Atilla the Hun" for his 'hire and fire' approach, and this seems to help business managers co-operate to some degree with Hammond. Compounding the difficulty of her position, current pressures on resources means that she spends more time doing mundane jobs, like booking cars in for valeting, and less time on taking part in what she regards as more important, more strategic.

Her "personal strategy" has been to try to win little battles, like forging a unified car policy. She thinks this is having the necessary confidence building effect and now she is trying for bigger gains, pushing for support for an internal Investors In People (IIP) programme.[1] Hammond believes that she is slowly but surely wresting control of HR tasks from the managers. Some of her peers acknowledge her contribution, while others view her with even more suspicion and resent her attempts to control or in any way influence their established right to, for example, reward hard working and enterprising engineers as they see fit.

4.5.5 Inter divisional tensions and conflict

Most organisations have inter-departmental tensions and conflict, but of the three organisations studied in this research, these tensions and conflicts seem most intense in Timeplex; tensions seem to overshadow every discussion. Customer Support, Sales, Manufacturing, and Engineering Design seem to come into conflict in various ways, and there appears to be much covert political behaviour among managers. Many see their

[1] Investors In People is a certification programme ,sponsored by the British government, to encourage companies to invest more in staff training. Companies who pass the certification criteria may display the IIP logo.

colleagues as being out to get as much as they can for themselves from a company that has potential but is struggling - a struggle that in their view exists partly because of excessive self interest. Manifestations of this exploitation include the high levels of overtime being claimed, and the use of more expensive classes of air travel. At the same time many of the accusers claim the same perks and benefits as a right for their hard work in helping shape the company's survival and growth; and as an expression of their standing in the company. Many question the competences of their peers and senior managers, citing as evidence that the company has no long term strategy that they can see, and that the company is forever reorganising. Others talk about leaving the company, taking their know-how with them to set up businesses. Many of these tensions can be seen in the New Product Release process and in the relationship between Sales and Customer Support.

New Product Release tensions

New product introductions is one area where conflict is evident. The cycle might start with Sales making promises to customers about the availability of new products, perhaps because sales people feel that customers want to hear that Timeplex can offer the latest solutions, and is abreast of customers' wants. So there is pressure on Sales to make promises about new product availability. In turn, Manufacturing and/or Engineering Design do not want to be seen as failing in their contribution to rejuvenating the company. The pressure they experience means that often they will release new products to the Sales organisation that the Customer Support people regard as "half baked". Furthermore, Engineering Design are seen by their European colleagues as designing products without listening to what the European market requires.

The European customer may get a product which still has known software bugs, or is still in the 'Beta' development stage,[2] or appears to be designed for the American market. Customer Support is then called on to fix any problems associated with the new product, and in the

[2] Alpha and Beta are prototype stages in the company's product development procedure. The former describes in-house product testing, and the latter is product testing done by and with the agreement of a selected customer.

early days of a new product this can be mean heavy use of technician time on-site and therefore high costs to Customer Support. If the initial installation problems become protracted and the customer starts to demand that the product be removed, or wanting their money back, or threatening to ring the President of Timeplex, then inter-departmental accusations escalates.

Staff feel that because of Ascom's weak financial health, and Timeplex's own poor state, there is severe pressure to get new products out and earning revenue. The recent introduction of a new product, the TX3, highlights the pressure. New product release procedures call for the Customer Support Group to evaluate the TX3 while it is being 'staged', meaning being prepared for release from Manufacturing and Engineering Design. When early in 1994 two engineers from Customer Support arrived they began to test the new product's robustness by pulling out a couple of printed circuit boards from the back plane of the TX 3 product, while powered up. The product specification demands that such action shall have no effect on the product's performance. Unfortunately the product crashed as a result of the removal of the boards. Engineering Design senior staff responded by accusing the Customer Support engineers of being unhelpful and asked them to leave the site. No reason was given for Engineering Design's reaction, but some speculate that Engineering Design do not want any delays in getting the product out. Others suggest that Engineering Design and Customer Support are working from different performance specifications.

From Hammond's perspective Timeplex is composed of "little empires" where,

> People are very busy, involved in their own areas, and they don't believe in giving out information. So Engineering go off and design these products, but there's no two-way feedback [like] well what's the customers asking for at the moment. This box comes out, its not even right for the European market, there's no actual interface, there's no documentation that comes out with it, they're allowed to just go off ..., they have their own Profit and Loss, they're not judged on whether they talk to the Distributor or the Sales operation in the UK. They produce the boxes that their objectives say they have to produce and out it goes *(Hammond)*.

Most interviewees share the view that the 'Profit and Loss' performance criteria for Manufacturing and Engineering Design is a major source of conflict between departments

and individuals. There is significant pressure on this group to get new products out of the door and sales people are equally keen to see new products in the field. There appears to be a high incidence of products leaving Manufacturing/Engineering with design faults, made worse because new products still reach customers weeks or months late. Although there are formal procedures for releasing new products (proto-typing, alpha, beta), these are being compromised by the fierce financial performance criteria. Hurd believes that product functionality and quality are not being subjected to an exhaustive range of conditions, due to time pressure. As noted earlier, functionality is also biased to meeting the larger USA market requirements.

The view of many staff is that since the company has been making heavy losses during the past three or four years, making many people redundant in the process, no one wants to be seen as responsible for holding back the company's attempts to turnaround its fortunes. There is an ever present threat of being fired for appearing to be unhelpful. Recently the President of Timeplex wrote to all employees reminding them that the company was not yet out of the woods and that there was no room for complacency. Many people in the UK who felt that they had put everything into Timeplex these last two or three years read this as "try harder or be fired", and some of these people have left the company for other more tempting and less threatening positions.

Product Sales versus Customer Support

Product Sales and Customer Support have separate command and control lines of responsibility which 'meet' at the apex of the organisation under two Vice Presidents, one for Sales and the other for Customer Support. The relationship between Sales and Support at the local UK level means that Hurd's Support team must respond to the support requirements of Davis' Sales team, while meeting financial performance targets guided by the world wide Vice President of Support in the USA.

The conflict between Sales and Customer Support seems to manifest itself in the areas of performance measurement and managerial control. Sales performance is measured in terms of sales value, and the commission structure appears to encourage discounting. This suggests that remuneration rewards numbers sold and not the value of individual sales. It appears that Sales has no responsibility for the quality of sales, for example, whether the product is fit for purpose, and delivered on time. Sales persons' salaries have a bonus element, with many taking home salaries where more than 30% of it is bonus. There is a very strong incentive to sell and move on to the next sale as fast as possible, without looking back. Typically Sales complain that Customer Support are too slow in responding, or take too long in solving problems, or that Support fails to understand Sales' priorities.

Customer Support performance on the other hand is formally measured in terms of financial contribution to company overheads. As noted earlier, some of Customer Support's income is from cross charging internally for its services, for example charging Sales or Manufacturing or Engineering for time and technical resources provided on site. Interviewees admit that cross charging is not a value adding activity, the cost of administering the process is unknown, and seems to be having a divisive effect. Support staff complain about the way that Sales sell products which are not yet available and feel that Sales have a "hit and run" approach to selling while Support always "have to come in to pick up the pieces".

Managerial control is another source of tension and conflict, certainly within the UK. The independent hierarchies of Sales and Customer Support means that while Davis can and does call on Customer Support, he has no control over the function, in particular its budget and revenue generating capability. Both Sales and Customer Support managers find this economic transactional rather than hierarchical relationship to be a strain. This does not mean that Hurd would prefer to report to Davis. Hurd's career opportunities are better served from the current relationship, however stressful it might be at times: the prospect of becoming the Vice President for Customer Support is more valued than anything Davis could offer.

There is also tension surrounding the embryonic Professional Services group. This group offers customers sophisticated remote monitoring and maintenance services. The Customer

Support group see this as an innovative way for them to generate new revenue to boost their income stream and "meet their numbers". Davis sees it slightly differently. He agrees on the potential of Professional Services, but not its ownership:

> one way of [generating new revenue] is Professional Services; to build added value around what you're selling the customer, but that's got to be driven from Sales, that's not a Service oriented ... I mean Service has got to deliver it in some cases, but Sales are the people up front in there selling it, pitching it, and in fact giving the customer the comfort factor ... and then that's all supported from behind *(Davis)*.

The three key people from Professional Services declined to be interviewed. No reason was given, so the following observations are entirely based on comments made by staff from other departments.

Most interviewees are able to refer to Professional Services, but few people seem able to articulate coherently what work is done by that group. Humphries says that,

> its an area that's been under a lot of criticism, because its never clear exactly what they do. I mean I got some information I was reading last night on what they actually do. Their function seems to be one of supporting Sales bids for new business by packaging Timeplex's services against the requirements of a particular customer. They feed the salesman the information he needs to do the deal. *(Humphries)*.

This new service seems to have emerged during the last two years as Customer Support staff, conscious of the need to find new revenue streams, perceived an opportunity to sell additional network management services to customers. To date Professional Services shows promise but has yet to show profit. This department's current status seems to be in limbo, in that there seems to be some doubt about its function and exactly where it sits in the organisation, with Sales and Customer Support vying for control. As Braidwood noted,

> there were a lot of political changes a little while ago. We used to have a European Professional Services Manager, Willis. He reported directly into Richard [AVP International Services]. That then changed about four or five months ago. Something broke down within the system, and Willis now reports directly into the UK MD, Davis. So therefore the Professional Services group no longer works outside of the UK *(Braidwood)*.

Whatever "broke down within the system" Professional Services seems to have been broken up geographically, with the UK element going to Davis, and the remainder staying in Hurd's

Customer Support organisation: the mainland Europe part going to Cecil, Manager of Multinational Projects, and the minor Distributor related element going to the Belgium based Service Manager.

Davis is very critical of what he sees as the existence within Timeplex of two different organisations with different motives and directions, a lack of common views about the way forward for the organisation, what skills are required, and the way to use them, and associated costs and investments. In his view a better arrangement would be where he as Managing Director makes the "arbitrary decisions" than determine the actions of a combined Product Sales and Customer Support organisation.

He is openly and actively trying to influence anyone who will listen, from the President down, that Customer Support should be "tucked in behind Sales", rather than operating independently. He feels that his scope for realising the full potential of the UK business opportunity is being constrained by not being able to control Support, and to a lesser degree having to make do with products designed more for the US market. As noted earlier, even with this handicap he claims to be growing the UK business by 50% pa.

Davis sees his selling organisation as pushing at the frontiers of new applications, for example in the combined WAN-LAN technology, but Service is still behind, working with old technologies. He is critical of the perception that Service is more profitable than Sales, because investment in R&D is being paid for by current product sales. Secondly, Service revenue is based on products sold perhaps ten years ago, and they are barely growing their income at 2% to 3% pa.

Some interviewees think that the division within the UK is not as serious as in the USA. For example Stubbs, a Product Support engineer, sees the Service and Sales organisations working together quite well in Europe, with the USA in the difficult position that the UK was in five years ago:

> we're not too bad here in the UK, and I would say in Europe, but certainly in the US there's the departmental towers where people don't talk. Sales is sales, Service is service, and there's no bridges between the two. We've had that but through a lot of hard work and talking, we now seem to work quite well. We've got a good relationship between Sales and Service, which is the two biggest organisations in the company *(Stubbs)*.

The importance of political behaviour

During the period of this research there was a belief circulating that a new Marketing team, based in Boston was being established, and that since being set up they had removed about six Assistant Vice Presidents from the existing organisation. Hurd believed that they were like a new broom sweeping out the old ways, that O'Connor was implementing a reorganisation but no one, including himself, knew any details.

Given the difficulty of his position (i.e. the problem of serving two masters; one in the USA and the other in the UK), Hurd felt that this chilling breeze was slowly coming his way. Some months later while Hurd was on holiday with his family in Florida, he received a call from his boss Richard (AVP International Services) summoning him to a "heart to heart" meeting with some other senior executives. It seemed that "others in the UK" wanted Hurd fired. He was not entirely surprised by the call, given his relationship with the UK and his expectations of the Boston group. During a three day "heart to heart" meeting it transpired that Davis felt frustrated at not being able to convince Timeplex's President and other senior executives that the UK should control Customer Support. This being the situation the UK leadership then turned to showing the Customer Support function as being ineffective, employing various devices to undermine its credibility. Davis stressed that it was "not a personal" attack on Hurd. It seems that by discrediting Customer Support Davis would be able to invest in his own Customer Support team, perhaps building on his recently acquired Professional Services team. One possible outcome of the meeting was that a new position of Vice President Europe would be created for Davis, with Hurd reporting to him. For the time being Hurd is safe, but clearly strategy is shaped by political behaviour, without losing its rational pretensions.

4.5.6 Planned change

External consultants, Booz, Allen, Hamilton carried out two studies over a six to nine month period during late 1993 and early 1994, and thought by some to cost nearly $2M. They surveyed customers for their views of Timeplex and its competitors, and looked across a range of parameters, including quality of product, service, technological sophistication of products, and price. Among other things the findings showed that customers thought Timeplex's technology was getting out of date, service was reasonable but not outstanding, and customers saw Product Sales and Customer Support as different organisations. Although the Langley office has at least one copy of the full report describing Timeplex's competitive position and recommendations for change, almost no one in the UK has seen it, though a few have seen summary presentations of particular aspects. A few staff believe that O'Connor, having accepted the findings of the consultants, asked them to implement its recommendations, starting with the USA organisation. Many believe that the Boston group referred to earlier was in fact the consultants reorganising the company.

Since about April 1994 Timeplex has been undergoing a "re-engineering" process to make radical changes, to the services to be offered, and the way that internal departments interface with each other, for example reforming the Product Sales and Customer Support split, more European influence on the product design process, and a product design philosophy that supports remote maintenance. According to Stubbs all departments will be affected as the changes are instituted, starting with Customer Support. There are various teams or committees co-ordinating change in specific areas. Within Customer Support for example, there is a team consisting of five USA and three European members. Stubbs is one of the European contingent; with Oattes representing Field Service management, and Humphries representing the European Customer Response Centre. Stubbs is also on another team looking at the Product Release Cycle. These representatives have been told by the USA leadership not to discuss any of the planned changes with their work colleagues.

One radical change will be the bringing together of Sales and Service, joined by a common goal. Exactly how Service and Sales will be brought together is not clear; it still seems to be evolving. One possibility is that Davis gets his way and takes control of a UK Customer Support unit, or he might become Vice President European Sales. One planned change that is intended to diffuse many of the conflicts between Service and Sales, is the creation of a Central Processing Office (CPO) in the USA. The CPO team will comprise a mix of sales and technical personnel, and will be the main interface with a customer, managing the whole range of product sales, customer support, project management, customer education. The activities of this new department will therefore replace the existing situation where Sales, Service, and Professional Services each negotiate individually with the customer. Stubbs is unsure whether there will be a CPO in Europe, but "this will be decided by the Americans in time".

Braidwood, a colleague of Stubbs thinks that the changes are aimed at addressing those areas where Timeplex is weak, as described in the Booz, Allen, Hamilton report. He is not a member of the UK representative team but has no hesitation in explaining what he thinks the changes are. Braidwood's knowledge is probably a mix of informal contact with representatives, and a dash of his own imagination to fill in any perceived gaps. What Braidwood does and does not know highlights the difficulty that senior executives have - located remotely in their head office in the USA - of maintaining formal control over information flows throughout the company. Braidwood notes that there are some fundamental organisational changes brewing in the USA, and he imagines

> this new strategy of changing all of our systems, changing our procedures to work better for our customers is good. Its being kept fairly quiet until someone is able to come over and give it to us, and tell us how it is, and what the improvements have actually been in the States *(Braidwood)*.

According to Hurd, the plan is to implement these changes first in the USA, by 1st August, 1994, followed by a European implementation that should be completed early in 1995. All implementation meetings take place in the USA every few weeks. Stubbs feels that the output of the initial meetings represented a good mix of ideas:

> there has been in the past a sort of them and us, the US and the world, and through the process of re-engineering we're trying to break that down. Traditionally in the past any organisational changes have been decided in the US, and then forced upon you, 'this is how you'll do it', but this time round we've been involved earlier on, we've had the chance to put in some of our ideas, and we've got quite a few of the European ideas in *(Stubbs)*.

After the first couple of meetings, the output of meetings seemed increasingly to reflect a bias toward the USA. Stubbs feels that this is because the majority group is based in the USA, and are in the larger home market, whereas the European team must return at intervals to catch up with discussions and developments that have taken place in their absence. Interestingly, although the team managing the formal implementation process is supposed to reflect Timeplex's international status, the informal US network of staff seems to have substantial influence in setting the pace and agenda for the formal process. According to Stubbs:

> some [decisions] we can't do anything about because its gone beyond the end stop, and its been decided, but the items that are on-going that we still have input [to], then we can look at them constructively and provide input. And some of those have actually been changed following the input provided by the Europeans, and in other cases it hasn't. I would say in about 10-15% of them there's been no additional input required, because they've got quite a good process in place just through the American way of thinking *(Stubbs)*.

Stubbs' account suggests that European contributions are not being ignored so much as being framed within the USA members' "way of thinking". European decision choices are being framed to some extent by American assumptions and priorities.

Accounts suggest a 'US-centric' view of the world. Braidwood and Stubbs talk about "waiting for the Americans to decide, to give it to us" and about Europeans "having input". Months went by before any UK staff questioned the need for the secretive nature of the implementation process; there are no European meetings to discuss the probable changes; there seems to be a belief that if it works in the USA it will work everywhere else; R&D will continue to be located in the USA. During the summer of 1994 a delegation of senior US executives, from Sales, Engineering, Manufacturing, Customer Support, visited Timeplex UK to find out what new products they wanted. Some respondents saw this as a hollow gesture, where the delegation would go through the motions of listening but nothing would come of the visit. They remember similar visits in the past not producing any change.

Writers that see the existence of groups as explained by functional theory (Fincham and Rhodes, 1992) would expect the integration of Sales and Support to reduce conflict through the creation of shared goals. This is certainly the expectation among interviewees. In contrast, social identity theory (Fincham and Rhodes, 1992) suggests that such re-structuring may not be enough because of the enduring nature of group based perceptions (the difference between them and us), and a strong group history of conflict. Whether these changes will break down the Sales and Customer Support divide, or diminish the individualistic and territorial behaviour among managers and engineers, remains open to speculation.

4.5.7 Conspiracies

Most of the intended changes are known to only a few senior managers. Most UK personnel are aware that two or three people keep disappearing off to the USA every few weeks, but what these people talk about is unclear, a source of rumour. News about particular organisational changes are published in the company newsletter, usually after the event. News about forthcoming changes are shared selectively, usually with those whose jobs will be immediately and directly affected.

It seems that attempts to keep tight control of the implementation process has resulted in greater speculation and conspiracy theories. For example, the TAC staff in the USA and UK have a very close working relationship and talk to each other daily in carrying out their tasks of supporting trans-Atlantic telecommunications networks. They also share information and speculation about what is going on within the company. In the USA some field engineers have received phone calls offering them positions in the new order. This heightens the fear of redundancy because as Hurd says "when field engineers meet as they do, questions like 'did you get a call about so and so?' are bound to generate new questions and breed suspicion when the response is negative".

Attempts to control information about the implementation of change in the UK office has resulted in individuals having differing understanding about the changes, and this cuts across

hierarchies. For example, Davis' understanding is that the most senior people in Timeplex recognise that something needs to be done about integrating Sales and Customer Support. His criticism is that the solution being implemented is restricted to the internal workings of Customer Support, cutting cost out, rather than seeking any input from Sales. In his view the company should be adopting the more fundamental course of merging Sales and Service. Hammond knows nothing about the changes, but feels that "the fundamental problem is the way we are structured, and I think there are going to be some changes from what I can pick up". Individuals are looking for signs, speculation is rife, staff are suspicious of each other and morale in general is lower. Apart from some specific changes already implemented, and a common-sense notion that there is a reorganisation afoot, no one in the UK seems to know the overall philosophy or thinking behind the re-engineering programme.

Stubbs' theory about the reason for the secrecy is that the responsible USA executives are afraid that too much information will cause too many people to leave, many of whom will be staff that they want to keep. According to Braidwood the USA leadership are restricting information because they don't want people to worry. However, a scarcity of information seems to have heightened the sense of conspiracy among staff. At all levels they seem to be constantly looking over their shoulder, continually re-assessing their positions. Many have heard that as part of the changes a few Assistant Vice Presidents were recently made redundant, but no one knows the reasons surrounding the redundancies.

Some weeks into the interview schedule, Smith (technical author and document controller) admitted that she thought this research was using the story of university research as a cover for checking up on the Langley office. Here is someone, barely two months in the company and already she is suspicious and sees a conspiracy.

The re-engineering programme is intended to improve Timeplex's competitive position. Part of that improvement rests on extending the company's capabilities, as discussed below. In the next section examples of enterprising behaviour by individuals seem to be an inherent feature of strategy practice, coexisting with the politics, tensions and conflict, discussed above.

4.6 INNOVATION

4.6.1 Extending capabilities

It is perhaps misleading to talk about Timeplex recovering lost market share or position. This implies a static market and technology. Market expectations continue to move on as do technological developments; financial services market developments continue apace and information and communications technologies are ever changing. One seems to be shaping the other, through a bond of spiralling market expectations and growing technological possibilities. As noted earlier, potential customers today see Timeplex products as 'steam driven', and possibly even a spent force in the Wide Area Networking (WAN) arena. They are yet to establish themselves as a credible force in Local Area Networking (LAN) and Advanced Technologies.

Corporate leaders in the USA see the future market opportunities as evolving and requiring a fusion of WAN and LAN. Interviewees talk enthusiastically about a new product being developed now that will again position Timeplex as a leader, but that it is not due for another 18 months. Meanwhile they must make do with Timeplex being just another competitor, offering a range of products, some better, some worse than those of its competitors. Timeplex UK managers recognise that the company needs to catch up and move ahead at the same time. They think that Timeplex is probably spending significantly above the industry average on R&D, and that such relatively high spending will depress profits or even generate losses for the next few years until the new products emerge and are successful in the market. They further recognise that Ascom is currently investing heavily in Timeplex, and are conscious that that could come to a sudden end for a variety of reasons: impatience with Timeplex's performance, continued poor Group results, or a good offer from another company for Timeplex.

Timeplex staff would probably agree with Georghiou *et. al.,* who observe that sustaining competitive advantage requires continuous post-innovation improvements (see 2.5.4). However, at the moment Timeplex managers and engineers believe that their ability to make

a major technological leap underpins long term competitive advantage more than being able to maintain incremental improvements. Although the original Link product has been updated to Link Plus, the market for the Link product range and its associated recurring technical support revenue is vanishing as it faces more sophisticated competitive solutions. The incremental improvements of Link Plus is not seen as sufficient to put Timeplex back as either market or technology leader. Failing to maintain investment in Timeplex's competencies has left the company with a challenge: how to catch up in WAN technology, and how to develop and extend its limited capabilities in LAN and Advanced Technologies.

Timeplex's managers and engineers recognise that extending their capabilities from a familiar to an unfamiliar technology is problematic, but as something that must be embraced to access future opportunities. So central is the need to extend capabilities that Hurd, European Customer Support Director, has instituted a training programme with all engineers gradually being trained in Advanced Technologies, while expertise in supporting the old Link product is being managed out of the picture. One problem is that most sales people and engineers are trained and experienced in either WAN or LAN, who according to Davis, UK MD, "know instinctively through experience what to do with a problem". Cross training is on going, but some people cannot make the transition. He notes that most people want to change, but a proportion will not do so, and will leave.

The intention to develop Advanced Technologies as the way forward seems to have been handed down from the USA executive. No one questions this as the right way ahead, but there are mixed feelings about how the company's leadership arrived at the decision. Many respondents believe that the management consultants advised the USA executive that the technological way ahead was Advanced Technologies. Others say that the way ahead was clear, and they didn't need consultants to tell them, and anyway the consultants are just feeding back what they have learnt from Timeplex staff. The source of the initiative has already become unclear, and so contested.

4.6.2 Enterprise

There is a core product range, and a shared sense of what markets and technologies Timeplex is committed to. However, in addition to this, there seems to be significant scope for individuals or small groups to commit the company's resources to particular initiatives, with little reference to any formal sanctioning mechanisms. This can be seen in the way Multinational Projects work, and in particular individual initiatives.

Many companies' functions are distributed globally. For example, Head Office in France, R&D in Italy, Production in Taiwan. Head Office, say in Paris, might request Timeplex to carry out some work on their Taiwan offices. Multinational Projects was set up to deal with such companies. It provides one point of contact for potential customers, and co-ordinates Timeplex's internal communications. Multinational Projects consists of three people: a projects co-ordinator, Braidwood as Team Leader, and Cecil as Multinational Projects Manager.

Cecil finds ways of re configuring Timeplex's products and services to satisfy customer requirements, or indeed to suggest a customer need. He gave an example of a recent triumph against "the Timeplex system". A particular customer wanted some software that was not generally available. Cecil came back into Timeplex, negotiated with Engineering, Manufacturing, Sales, and Technical Services, to find a way of packaging a solution that normally exists as a segment of software in one of Timeplex's products. His negotiations involved finding new procedures for legitimising the new product, including costing, manufacturing, technical support. According to Braidwood, Cecil's objectives are "to go forward in creating new untapped revenue streams from Professional Services, or Network Services as he would call them".

Another example of individual initiative discussed earlier is Humphries' development of the ENMC unit. Humphries had complete freedom in interpreting Richard's 'move with the Sun' vision. He sees his ENMC as both a strategy and as an innovation, and can see other areas where ENMC can be extended. For example, diversifying into managing high volume low

value networks, like Sainsbury's check-out stations, or as a way of enhancing a new Field Management System.

Stubbs provides another example where the individual seems to have unfettered scope to shape work organisation processes. He sees his job as the transfer of technical knowledge from the Product Support groups in Clearwater to European Customer Support engineers. He describes his role as "a funnel or channel " of two way communication between the "knowledge base" of the Product Support groups and the Europe/Africa Service Managers. He has no one reporting to him, nor does he share the job with anyone. Such a position seems to ascribe to him a 'gatekeeper' role between Europe and the USA.

He sees the transfer of knowledge as more than the co-ordination and delivery of information, as can be seen during the first time installation of a new product. For example there are situations where something "does not seem obvious at the outset until we experience the practical side of doing something". He adds that

> we can read all the technical documentation, at that stage probably the training courses are all new, if not non-existent. So the first couple of installations are usually ad-hoc, we'll learn as we go along sort of thing. And then following that installation we'd get all the points where we went wrong, what we shouldn't have done, what we should have done, and from that we'll formulate a procedure for the following installations. So there's a certain lack of knowledge at the outset that's rapidly learnt *(Stubbs)*.

He feels that in an ideal world there should be no need for the initial scramble to acquire knowledge by trial and error. Timeplex is old enough at 25 years, with the right people, processes and systems in place to ensure that the requisite knowledge is known in advance of the first installation. He sees the problem of the initial scramble being due to people accepting the situation over time, because that's the way its been for a long time. It is also due to failed co-ordination, rather than an unavoidable part of the learning process, in his view.

According to Stubbs, contributing to the failure to "get it right" is that Timeplex has Engineering Centres that all work slightly differently, thereby making it impossible to attain one standard product release process. He has taken the initiative to do something about it, and

has "put together a few ideas, that some regard as radical" although he does not think they are so special, and put them to a number of senior managers within the company. His aim is to see that during the next year everyone will move to a common product release process, based on the ISO standard. In pursuit of introducing change he has held various meetings with managers and slowly they are beginning to see the benefit of operating to his proposed standard procedure. This standard is now being implemented in Europe with the USA following shortly. When these co-ordinating and procedural issues are ironed out, he believes that the messiness of trial and error will drop out, "because the right documentation will be at hand, and the training courses will be in place before the first installation".

In one further example, Braidwood, Customer Support engineer and Escalation Manager, initiated and produced a Multinational Sales and Service Guide. In it he brought together in one manual a global and comprehensive listing of all Timeplex offices, Distributors, the products and technologies installed in their regions, contacts, and other useful information. It took about nine months to complete. This was hailed by his colleagues as a great and useful idea, and will be adopted by all Customer Support and Sales staff. Some customers will also get copies. Stubbs sees this as forming the basis of a computer database using Lotus Notes.

Braidwood was not asked to create the manual, it was his own initiative. He was told that he could do anything as long it did not cost much. In the context of Timeplex's established practices, this work brought together, in a novel way, tacit and codified knowledge that hitherto was held by many different people around the globe. Even before it was completed and presented as a manual, it triggered other ideas from those who came into contact with Braidwood's work. It has commercial impact, but one that is diffuse and difficult to measure. It will help Customer Support and Sales staff by saving them the time previously needed to hunt for information. Very often international telephone or fax calls requesting information were not answered for 24 or 48 hours, or days later. It is also a useful directory of Timeplex facilities for customers with international offices, and will encourage potential customers to understand Timeplex's global scope. For his part Braidwood now has a more holistic and comprehensive understanding of Timeplex's web of products, services, and support channels

than anyone else in the company. His knowledge could have important leverage externally with customers and internally with the development of the suggested computer database. Indeed he is now being asked to take part in marketing presentations to potential customers.

4.7 CONCLUSIONS

This account has focused on how Ascom Timeplex's UK staff understand strategy and the role of innovation, and what they make of their company's strategy and innovative performance to date. What emerges is a strong sense of continual tension and often conflict as individuals interpret and pursue their flavour of the company's strategy. Taken as a whole the practice of strategy in Ascom Timeplex seems like 'managed chaos' (see 2.3.3). In this company it is the personal values and preferences of individuals more than adherence to any formally declared grand plan that shapes the practice of strategy. This differentiation of objectives is particularly clear between Sales and Customer Support.

Everyone recognises the divide between Sales and Customer Support as a major source of conflict, and a number of structural changes are in hand to try to remove that division and with it the conflict. Nevertheless, the company's history is permeated with changes in corporate ownership and reorganisations, and it remains an open question whether the current round of restructuring will remove conflict or simply redefine it. Contributing to this sense of continual change is an equally unstable industry. Entrepreneurial activity and technological change within and across telecommunications, information technology, education, entertainment, and other developing areas continue at such a pace that most people engaged with these sectors take change for granted now.

The differentiation of values among managers and engineers in Ascom Timeplex is not due to its leaders' inability to instil a common mission; individualist behaviour is a way of life in this company, it is taken for granted by most staff. At all levels of the hierarchy people are encouraged to take the initiative. Individuals seem more likely to be valued by superiors and peers if they show a sense of enterprise rather than a readiness to look for precedent and

follow procedure. Staff who have been with Ascom Timeplex a long time (a dozen years seems to be a long time here!) regard the company's entrepreneurial beginnings fondly, and most interviewees identify with that spirit. Understanding why the practice of strategy in this company seems like managed chaos and why individualist behaviour is taken for granted requires an appreciation of an organisation's way of life, and this is the focus of Part III.

5

Bank of Scotland

5.1 INTRODUCTION

This account is drawn from interviews during the summer of 1994 with ten executives, mostly senior, involved with shaping strategy in the Bank of Scotland. Interviewees represent both the corporate body and the main Divisions of the Bank: Management Services, Branch Banking, International, Card Services, Centrebank. Information was also taken from publicly available Annual Reports and Accounts, plus notes provided by the Bank on its historical achievements, including descriptions of its work organisation arrangements.

The story highlights the centrality of the Bank's heritage as a source of continuity; the collective sense that strategy means 'stewardship', and the endless pursuit of efficiency gains. It shows strategy as a largely top down affair, even though its managers commonly referred to the Bank's way of being strategic as opportunistic and flexible.

5.2 HISTORY AND SIZE

The Bank of Scotland (BoS) can trace its roots back 300 years, to 1695, fifty years before Bonnie Prince Charlie and his army attempted to regain the British Throne. It was the only UK bank to be founded by an act of the Scottish Parliament, and "from these humble beginnings grew the Scottish banking system which was to initiate much that is at the very roots of modern banking practices today" *(A Brief History Of Scotland's First Bank, Public Affairs Department, Form No. 1457).*

5.2.1 Size and performance

Today BoS Clearing Bank is the biggest company within the Bank of Scotland Group with over 450 branches in Scotland, some 20 offices in the main cities of England, and offers retail banking and clearing services to personal and business customers. Within the Group there is also a merchant bank (British Linen Bank), a finance house (North West Securities), a factoring company (Kellock), and a regional retail bank (Bank of Wales). The Bank also has an international dimension. It wholly owns Countrywide Banking Corporation, New Zealand, and in 1995 acquired 51% of the Bank of Western Australia. It is also represented in the USA, Hong Kong, and Russia. The Group employs about 15,000 people world-wide.

The Group's profitability has shown a steady improvement since 1990. Group income is measured in terms of interest and dividends, fees, and commissions. For 1994 the Net Operating Income amounted to approximately £1.14bn, and a Profit Before Tax of about £269m *(1994 Report and Accounts)*. Pre-tax profits represent a 114% increase on 1993 (£125m), with most Divisions showing growth. In particular BoS has been a major factor in the Group's growth. The Bank of Scotland's contribution to Group profits in 1994 rose from £75m to £168m, amounting to about 62% of the Group's Profit Before Tax.

The focus of this account is the Bank of Scotland Clearing Bank, which comprises six Divisions (Fig. 5.1). First is UK Banking, which is the biggest Division. It is divided into three businesses: East Scotland, West Scotland, and England. The other Operating Divisions are: Treasury Services (actually a wholly owned subsidiary), Card Services, Personal Financial Services, Centrebank, International. Supporting these independent businesses are four central organisations; Accounting & Finance, Compliance & Legal Services, Management Services, Personnel & Property.

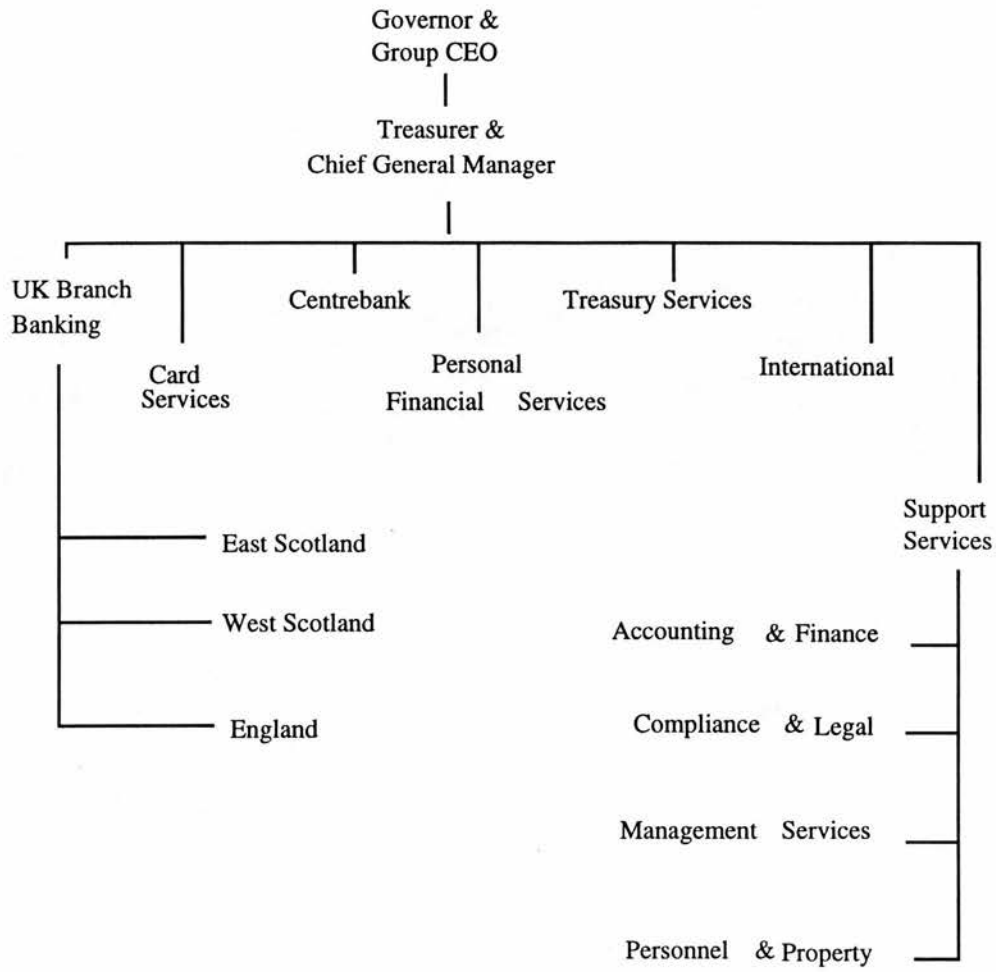


Fig. 5.1: Bank of Scotland Clearing Bank structure (June 1994).[1]

5.2.2 Tradition

The Bank's staff give the impression of feeling proud and respectful of its long history, traditions, and conservative values. There is a sense of continuity with employees drawing comfort and a sense of identity from the Bank's heritage. For example, for the last 300 years the Group's Chairman has been known internally as the 'Governor'. Bank staff still affectionately refers to the holder of this title, currently also the Group Chief Executive as 'the Governor'. Staff see themselves as stewards of the Bank, with responsibility for further developing and strengthening an old and valuable heirloom to the next generation of staff. At

[1] In February 1996 the Governor and Group CEO positions were split, with the latter reporting to the Governor.

the same time many managers share a belief in the Bank being at the frontier of banking innovations, and that the Bank encourages and supports 'bottom up' innovative business development proposals among employees.

The Bank's head office has always been in Edinburgh and quite early in its history the Bank built its current head office on a prominent site in the centre of Edinburgh. These beautiful offices seem to offer concrete evidence of the Bank's history and conservative values. While many organisations' head offices are remote from their customers, the Bank's head office continues to be operational through the provision of counter services on the ground floor, and offices for the Bank's most senior executives above. Anyone entering the building cannot help noticing the wood panelling decor; there is a feeling of entering a stately home. Executives enjoy stately offices, surrounded by 18th and 19th century style decor and antiques. Browning, General Manager of Accounting and Finance, and a senior executive of the Bank is based here. His office is a very pleasant working environment, spacious, tastefully furnished and decorated, and functional without seeming utilitarian. Browning's visitors are treated with a certain amount of ceremony, with tea and biscuits served in fine china tableware around an occasional table, away from his antique style desk.

Those working in the head office argue that such an environment gives customers a positive image of the Bank. This building does embody so much that is the Bank: its longevity; its sense of preservation and maturity; a sense that whatever else may change, the Bank has not lost its roots, nor its close links with the community.

In contrast to the palatial surroundings of the head office, meetings with Project Managers in the Management Services Division and many levels down the hierarchy take place in very different surroundings. The atmosphere and facilities are very utilitarian with meetings being held in any one of a number of modern common meeting rooms, and tea served in the usual plastic cup.

5.3 WORK ORGANISATION

5.3.1 Corporate governance and managerial control

The Bank's organisational structure and managerial control practices have developed in ways that reflect its history, while meeting contemporary demands for more transparency and accountability at the top layers of management. Indeed, since 1994 the Bank's Annual Report and Accounts stresses that it has not only met but exceeds the recommendations of the Cadbury code for Corporate Governance.

Unlike many companies across whole industries today, there has been no de-layering or flattening of hierarchy here. Indeed, in 1981 the Bank introduced an additional layer of control, by forming the Management Board directly beneath the Main Board. The 1993 Report and Accounts dedicate three pages to describing how the Bank's top two layers are organised, and how its executive leaders make decisions. It notes that Directors' interests have been published for many years; that "decisions are not taken hurriedly and all members subject themselves to the discipline of cross-questioning by their peers" *(Annual Report and Accounts, 1993: 16).*

The same Report gives the frequency of Management Board meetings (fortnightly), noting that its detailed minutes are circulated, and to whom (the main Board). It further notes that lending authority increases with seniority; that an important role of the Main Board is to constantly check conclusions reached by the Management Board; and that "strategic decisions are taken by the Main Board only after careful consideration, on the recommendation of the Management Board" *(Annual Report and Accounts, 1993: 16).*

The spelling out of executive decision making procedures in this way, supported by interviewees' descriptions, suggest various things. First, that public trust is very important to the Bank, which is also reflected in its stated desire "to maintain its reputation for stability and integrity" *(Report and Accounts, 1994: Corporate Aims).* Second, that the Bank's executive wants very much to be seen to be in control of the Bank and its relationships with

outside agencies. Third that it is scrupulously fair in its dealings with everyone, measuring its performance against and exceeding legal requirements. Fourth, by publishing these details the Bank hopes to provide transparency and legitimacy for its decision making at executive levels.

The organisational structure provides a tiered and clearly defined career structure. Below the Governor in descending rank are; two Deputy Governors, Group Chief Executive, Treasurer, General Manager, Divisional General Manager, Assistant General Manager. This top tier is the Executive. Below this tier are the Managers: Senior Manager, Manager, Project Manager. Below this second group are Supervisors and Clerks. Staff are encouraged to pursue professional banking and other qualifications, and more than 30% of staff are professionally qualified having studied a five year course with the Chartered Institute of Bankers in Scotland. This professionalisation process is common across the banking community and probably leads to a high level of homogeneity of banking practices among competitors; it goes some way to explaining why product differentiation is extremely difficult. The scope for managerial control is prescribed by one's place within the formal hierarchy (Fig. 5.1), and is shaped by professional banking practices. For example, as mentioned above, lending levels rise with authority levels. Within the UK Banking Division, loans and credit, and deposit taking, are managed as separate business units.

This hierarchy of control coexists with an espoused belief in "empowerment":

> The word 'empowerment' neatly encapsulates many of the changes that we have carried through in the past few years. Within the Clearing Bank this theme also lies comfortably alongside our stated policy that wherever possible decisions should be made locally in the community to which those decisions relate *(Bruce Pattullo, Chief Executive, 1994 Report and Accounts, pp.-10).*

It may seem incongruous that the Bank has not only introduced another layer of managerial decision making (The Management Board), but also claims to have empowered staff. Browning argues that the Management Board, consisting of executives, was created "to empower" the executives, whereas the main Board is largely non-executive. To what extent more junior staff do regard themselves as being empowered is another question. The fashion

of stripping out layers of managerial control, as part of the empowerment claims made by many organisations is not embraced in the Bank's approach.

Inter Divisional comparison suggests that while individual Divisions have differing roles and structures, they share the same overriding concern for creating competitive advantage through continuous improvements in work organisation. This concern is common to UK Banking, the Card Services Division, Centrebank, the International Division, and the Management Services Division. Card Services Division is a good example of the extent of concern for efficiency and process management. Management Services Division, the IT and systems resource of the Bank, provides a good example of the layering of managerial control. The Management Services example also shows the persistence of established work organisation practices and the challenges that such practices present to new ways of working.

5.3.2 Card Services Division

Following the Bank's commitment to credit cards it had chosen to use Barclaycard's credit card processing facility. When in the early 1980s Barclaycard announced that it no longer wanted to process competitors' cards, the Bank was faced with another strategic choice:[2] find another card processing bureau; drop their credit card altogether; or create its own processing capability. With only 300,000 of its own cards to process, investing in an in-house processing operation at first seemed a non starter.

The Bank's executive not only decided to invest in a card processing technology, but went further by committing itself to attracting additional card processing business from other card operators. According to Brobbel, Divisional General Manager, the Bank wanted a card processing operation that would be profitable. Perhaps another influence on the decision to invest in card processing came from a learning experience during the 1970s, when the Bank reversed its decision not to invest in Automated Teller Machines (ATM) technology. Brobbel

[2] Some say that the Bank decided to pull out from the Barclaycard contract.

started the Card Services Division (CSD) in 1985 with a clean sheet, invested in the latest card processing technologies available, and pursued market share to pay for the investment.[3]

Over the next ten years CSD grew into a substantial business, with seven departments covering three floors of a purpose built building, located in a business park in Dunfermline, Fife. By 1994 CSD was processing 1.7M cards per annum, a five fold increase since its start up almost ten years previously. McLean, the Deputy Manager of Administration estimates that CSD processes approximately £9M per day in the form of cheques. CSD handles accounts for the Halifax and National & Provincial (N&P), though the latter has just decided to take its processing business to a competitor, FDR, and will manage some of the customer services from its own Bradford Offices. Apparently N&P feels that they can manage the processing of their own cards more cheaply than CSD. Card processing is a very competitive business, where profitability is largely driven by processing efficiency. Brobbel is therefore always looking for ways to increase throughput speed.

Approximately 16% of CSD's turnover is accounted for by the new (six months old in June 1994) automatic telephone payment system. Under this new payment system customers can dial a number and be led through a menu of payment options by pressing various keys on their telephone, the whole transaction being carried out without the intervention of any Bank staff. CSD anticipates that this portion of its turnover will increase relative to other forms of transaction.

Within CSD, Customer Services consists of about 40 women dealing with telephone enquiries across all of the card accounts processed by CSD. Staff should aim to process a call within 130 seconds. Calls which are too complex to process in this time are passed to a separate group. When transactions with customers warrant written communication, Customer Services staff initiate the letter by drawing on a database of 300 standard letters. Most other non standard letters are created by terminal based editing and cutting and pasting of the standard letters.

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3 Fincham et. al., (1994: 85) give an account of those early days of setting up CSD.

The database is located remotely on the Management Services Division's mainframe at Sighthill, Edinburgh, and printed out locally within CSD. At present all printers within CSD are located in a remote area from the initiator. It then has to be manually delivered by a post person to the initiator. The remote printing network is being re-configured so that in the near future such letters will be printed out near to the initiator, available for immediate checking and forwarding. This change is intended to reduce the delay and labour involved between letter generation and posting.

Another group deals with delinquent payments. Delinquent payments refer to credit card minimum payments not being received by the Bank by the due date. Delinquent payments are automatically put into a log for chasing the day after the due date. Trained staff generate 2,000-3,000 calls a day to card holders with delinquent payment problems, and the process is very automated. Staff sit before a screen, the customer at the head of the delinquent log is automatically dialled; account details are automatically displayed on screen ready for the ensuing conversation; a conversation that is guided by a script. There is a score board for measuring the performance of staff in dealing with these problems: for example, time taken to extract a promise from a customer to send a payment, and payment promises kept each day.

There is also a department of about three people whose job is to measure time taken to process work. This department is tasked with looking for ways of reducing processing time and therefore costs; there are various schemes in development and implementation. For example, CSD currently use machines which enable customer payment cheques and payment slips to be read and the amount paid keyed in, one at a time and at high speed. These machines are to be replaced by optical character recognition (OCR) machines which read the cheques and payment slips at high speed. Keying in will then be done separately.[4] This change will allow the cheque to be sent to the Bank for clearing immediately rather than

[4] Evidently OCR technology has improved because Fincham *et. al.*, (1994: 91) report that in the early days OCR was considered, but rejected because of its poor reading capabilities.

being held up in processing, sometimes overnight. CSD will therefore be able to realise the cheque value more quickly.

Brobbel feels that the culture and work organisation practices of CSD is very different from the other Operating Divisions of the Bank. CSD started from scratch just ten years ago, developing a highly automated "white-collar" factory (Fincham *et. al.*, 1994: 90), refining its own recipes based on knowledge and expertise obtained from the Barclaycard operation, FDR (the card processing software supplier) and other bureaux, with little operational involvement from the Bank's other Divisions. At a different level CSD's aims and practices are very consistent with those of the Bank as a whole. CSD's everyday practice is dominated by the pursuit of efficiency gains. Its technology and work organisation was developed by Management Services staff who while also being distinctive in their own way also carried the Bank's values to CSD. CSD's career structure is also taken from the Bank.

5.3.3 Management Services Division

Management Services is the Division (MSD) responsible for providing computer services to the Bank's Operating Divisions, including R&D and more routine technical services. The view of all interviewees is that MSD strategy should and generally does support Bank strategy. For example, the profitability of all banking services rely heavily on achieving low transaction processing costs. Minimising human intervention and processing time is regarded as key to realising payment receipts.

MSD comprises three main sub-divisions of about 800 staff: Research & Development, Systems Development, and Systems Operations. R&D develops new services for the Bank, such as TAPS. Systems Development implements new banking services, for example improvements to links in the Branch network. Systems Operations maintains the Bank's IT infrastructure. Each of these areas is sub-divided. For example, Systems Development is further sub-divided into four units: Retail Banking Systems, Departmental Systems, Development Services, Productivity Services. Each of these in turn is further sub-divided.

As noted earlier, positions in the hierarchy carry ascribed roles. For example, lending limits increase with seniority. This means that each layer of the hierarchy is to some extent self-contained, with its own sub-divisions and specialisations. Delegation can take place within the confines of the ascribed role of each layer without upsetting the whole structure. Duffy, is a Project Manager responsible for the design and development of Branch IT systems architecture within the Branch Delivery Team. This Branch Delivery Team consists of 50 people, and is led by a Senior Manager. Appendix 2 shows the nesting of this specialisation and the depth of layering of managerial responsibilities. Duffy feels that many strategic decisions are "bottom up"; he does not feel out of control, or that he is being controlled.

While scope for individual initiative is circumscribed by one's ascribed role, some other decisions rest entirely with the top of the hierarchy. These range from decisions about capital investment, to revenue budgets. All strategic and non-strategic projects go through a formal screening and financial evaluation, before any significant resources are invested in a full scale development project. Appendix 3 outlines the stages involved in selecting development projects. Although most projects are initiated by the Operating Divisions, a few do also start with MSD proposals. While such appraisal schemes are intended to support strategy by assessing the viability of alternative developments in products and banking processes, the appraisal has also the unintended capability to shape strategy. As noted above (5.3.2), the Bank had initially rejected investing in ATM technology because a cost-benefit analysis suggested it would be less cost effective than continuing with teller staff. The Bank soon reversed that decision once they saw a competitor, the Royal Bank of Scotland, gaining market share.

The supporting IT strategy has increasingly focused on a dual philosophy of centralised transaction processing and distributed branch accounting. Centralised transaction processing (processing money transactions, updating customer accounts, internal personnel records, and managing internal accounts), has been developed and refined, as the appropriate technological means for being a low cost provider of financial services. Transactions by all Divisions are transferred for processing to a mainframe at the MSD Sighthill location. At the

same time distributed branch accounting aims to enable a customer to visit any BoS branch and for the staff to be able to call up, at a terminal, a complete record of that customer's financial details, immediately. Browning and others believe that centralised transaction processing is more appropriate than distributed transaction processing for a low cost producer. Indeed in anticipation of the Bank's growth and ever increasing need to process more transactions, the room that houses the mainframe was built to accommodate increasingly bigger computers. In fact as Duffy noted, computer processing power has increased but the size of hardware has reduced dramatically; the room is now far larger than it needs to be for the mainframe. However, according to Browning, no one is wedded to centralised transaction processing as traditionally developed. Many recognise that the processing power of microchips has reduced the need for large mainframes, and local transaction processing would be faster and less vulnerable to disruption than remote processing.

Business Divisions' views of their scope for competitive advantage and technological developments are now encouraging a shift in philosophy toward distributed processing. For example, in the Branch network according to Duffy "the resources would be located on a Wide Area Network (WAN) rather than on a mainframe". In addition, at least one of the Bank's business Divisions feels that since they are accountable for their Division's performance then they should have control of their own IT resources. Some believe that local IT capabilities could increase Divisional flexibility in responding to competitive imperatives and opportunities. CSD for example thinks that local processing could speed up some of its own operations. At least one Division argues that some of its needs can be better met by external MSD competitors, and feels uncomfortable with supporting MSD overhead costs without some form of competitive bench mark that indicates whether MSD is giving them value for money.

Within MSD there is a debate about the implications of a strategic shift from centralised to distributed processing. For example Miller, a Senior Manager in MSD notes that many of those trained and experienced in centralised processing technology will feel threatened by the

emergence of distributed processing, perhaps regarding it as a "competing technology". She notes too that the entire "administrative support philosophy" revolves around "centralised thinking", and that there will have to be adjustments here too.

Attempts during the last five years to develop an "open systems network computing paradigm have fallen at various hurdles" according to Duffy. For example, on a number of occasions network projects have been raised but then put aside or make low priority in the face of more pressing and clearly defined project commitments. He thinks this is due to two things: first that no one is clear about what the "new paradigm should look like", and second that there has not been a champion to drive the issue forward. It is not clear what direction the Bank is moving in, and will no doubt evolve over the coming years.

Clearly IT strategy and its embodiment as MSD both reflects and shapes strategic choices open to the Divisions. Browning feels that the Bank's strategic options are less constrained by hardware possibilities than by the need to prioritise projects, based on their "inherent profitability, legal requirements, and the Bank's long term strategy". Richardson Deputy General Manager of Management Services is perhaps not surprisingly, adamant that MSD supports rather than leads the Bank's businesses. In his view the Bank's strategy is more about "setting directions", and

> strategy is more important for us in IT because we're the people who see the need for longer term infrastructural investment to support ..., but its to support a flexible strategy, it's to support almost the anti-strategy ..., its putting in place the flexibility to support the entrepreneurialism that will happen out there and won't comply with some great five year plan [that] just doesn't exist.

In saying that part of MSD's job is to interpret the future needs of the business Divisions, Richardson is also, perhaps unwittingly, acknowledging that MSD's interpretation of the technological possibilities will contribute to shaping Divisional strategy.

5.4 STRATEGIC AIMS

5.4.1 Corporate aims

The Bank's corporate aim is

> to provide a range of distinctive financial services throughout the United Kingdom and internationally; to maintain it reputation for stability and integrity and its long record of growth in profits; to be professional, friendly, prompt and imaginative in its dealings with customers; to train, develop, inform, respect and encourage staff so that they can perform an effective and fulfilling role. Through its branch network, the Clearing Bank aims to make a particular contribution to the cultural and economic prosperity of Scotland. *(Browning, 1993 paper: 3).*

As noted earlier, the 1994 Report and Accounts also state that the Bank aims "to maintain its reputation for stability and integrity" *(Corporate Statement, p.2).* This concern for stability and prudence is evidenced by the growth aims for the Bank's expansion into England. Browning in a paper prepared for City financiers described the Bank's aims as "the opening of a further modest number of corporate offices [in England] at the rate of some two per annum", while acknowledging that the Bank has only about 5.5% of the UK retail banking market.[5]

In outlining the Bank's aims and strategy, Browning presents strategy as a multi-faceted guiding principle. The Bank's strategy consists of "expanding in England ... through ... regional corporate offices; the innovative use of technology; the provision of Banking services from a centralised operation in Edinburgh; and joint ventures" *(Browning 1993 paper: 3).* He also talks about the Bank aiming to be "an efficient low cost provider of financial services" (p. 3), one of only four 'generic strategies' open to the firm in Porter's (1985) view. In writing on competitive strategy, Porter prescribes four options: low cost producer or differentiator, and broad or narrow market focus. In Porter's view mixing generic strategies is a recipe for mediocrity or below average performance.[6] Browning also talks

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[5] By 1996 the Bank's share of the UK retail banking market had increased to 7.5%.

[6] Porter's (1985) view that firms trying to mix generic strategies achieve mediocrity, through being 'stuck in the middle', has become increasingly controversial because of apparently contrary examples like Sainsbury supermarket where 'good food costs less'.

about the Bank remaining focused on "retail banking", "community banking", "relationship banking", some of which seems like attempts at differentiation, although Browning feels that these different terms mean the same thing. Brobbel, General Manager of CSD, sees his Division's competitive advantage as resting on being the lowest cost card processor *and* being able to differentiate itself from other card processing businesses. For the Bank strategy appears to have a differentiated meaning, an observation Mintzberg (1987) made in other studies (see 2.2.2).

5.4.2 'Opportunism' and 'stewardship'

Managers talk confidently about the Bank's aims. They do not need to refer to the written word, indeed some of them are not even sure where it is written down. Campbell, General Manager of International Division could not remember if there was one and had to check through the Bank's latest Annual Report and Accounts.

Many managers see the Bank as being 'opportunistic' and 'flexible' in its aims. Richardson, Deputy Divisional General Manager of MSD feels that strategy is more a case of having "a selection of things that we will prioritise and re-prioritise in response to markets and opportunities as they come along". He talks about the Bank having "focus and direction", perhaps expressed as "corporate lending", or "retail" rather than a formally articulated business plan or strategy. By contrast, Duffy, Project Manager in MSD sees the Bank's proclaimed strategy of "flexibility" as "meaningless and empty". He thinks that the real strategy is about being a low cost producer, and differentiating on quality of service. Indeed he thinks that this is a strategy that most financial institutions follow, imposed by the economic recession of the last few years. Furthermore differentiating on product is almost impossible to maintain, as competitors will sooner or later catch up and or pass you. He cites telephone banking as an example.

In addition to 'opportunism', employees, particularly managers, see their job as one of 'stewardship', of being entrusted with some very valuable assets, which must be passed on in better shape and without blemish to their successors:

> at the centre of our culture is the recognition that the current generation of management is being entrusted with the financial health of the Bank for the period of time they are in office and that they should use every endeavour to ensure that at the end of their stewardship the organisation should be passed on to their successors, in even better health *(Browning 1993 Paper).*

In some respects the notion of 'stewardship' seems similar to the way public sector managers and administrators view their role. Bank staff share a sense of responsibility and accountability for moneys which have been entrusted to them, and which they must use carefully. There is a concern for long term growth in capital strength, fee income, and interest margins, underpinned by prudence and stability. It is within this context of steady and progressive growth that short term performance, namely incremental profitability improvements are sought.

While stewardship provides everyone with a sense of orientation, managers still recognise that many of their strategic aims contain dilemmas, for example a focus on the short-term can compromise long-term aims, and vice versa. They see the task of dealing with these dilemmas as an exercise in judgement. Bruce Pattullo, Governor and Chief Executive, articulates some potentially inhibitive dilemmas facing the Bank:

> It is the task of the Main Board ... the Management Board and ... senior officials to strike the right balance at all times. [To] resolve the problems of the day but at the same time not lose sight of longer-term objectives; contain the growth in expenses but continue to invest in projects with a good return; look after the interests of loyal staff without being inhibited about restructuring where this is necessary; be prudent in our decisions [and] not take fright when the outcome of past decisions is not always as anticipated; be sensitive to customers' constructive comment and criticism but not be distracted by misinformed rhetoric; [to] think for ourselves and not get caught up in the fashion of the day *(Report and Accounts, 1993; 17).*

Pattullo's statement raises many questions: What is a good return, and how long is the Bank willing to wait for it? How does the Bank distinguish between constructive criticism and misinformed rhetoric? The Governor is able to articulate dilemmas, but how do practitioners strike the right balance? In section 5.3.1 above there is a glimpse of how, through the

ascription of roles and professional training, practitioners of the Bank negotiate and shape future events and relationships. 'Strategy process' below (5.5) also shows aspects of this process. Meanwhile Pattullo's statement shows that managers do find the time to indulge in some reflection.

In managing its dilemmas managers of the Bank do not appear to be lurching from one extreme to another, such as from long term to short term concerns. Indeed, as this account shows, the Bank has had 300 years of developing and refining the art of stewardship, its prudence with the Bank's affairs, a sense of duty to maintain public trust, and over the long term a reasonably stable environment. How is this stewardship maintained, and can it accommodate innovation? The next section reviews a range of processes that shape strategy, processes that the Bank's managers either deploy consciously or believe to be inherent to the Bank's way of working.

5.5 STRATEGY PROCESS

5.5.1 Formal forums

Strategic choices about the Clearing Bank's future are discussed within a limited number of committee forums. Most senior is the main Board, which is chaired by the Governor, Pattullo. Almost all main Board members are non-executive directors, the only executives being the Governor and Group Chief Executive. According to Browning the Main Board meets once a month to "consider policy matters recommended to it by the Executive: business developments, large lending proposals and other relevant business". Also reporting to the Main Board are various Local Boards (Aberdeen, East of Scotland, West of Scotland, and London), and committees with specific functions (International, Remuneration, Audit).

As noted earlier, one level down from the main Board is the Management Board with responsibility for "the day-to-day affairs of the [Clearing] Bank and the on-going development of its business" *(Browning)*. Like the main Board, there are various committees with specific responsibilities reporting to the Management Board, including Capital

Expenditure and Automation Strategy. The Management Board is chaired by Masterton, the Bank's Treasurer and Chief General Manager.

These formal arrangements suggest decision making to be very procedural and cumbersome, causing slow progress and a brake on creativity. It suggests top-down decisions and bottom up information flows. According to Browning this rigidity is countered at least among the very senior people by a few consciously determined initiatives. First, all Management Board members attend Main Board meetings. This facilitates communication and the free flow of developments, thoughts and actions between these two bodies. In this way proposals or ideas affecting the long term can be juxtaposed with day to day issues and ideas.

There is also an annual three day conference, attended by the Group's executive tier. This is typically the Governor, Deputy Governors, General Managers of the Bank, and senior executives of the principal subsidiaries. The event is for airing ideas, updating each other on plans and current developments, and for discussing "the strategy and policy issues of the day, and future directions" *(Browning)*. Issues that might affect the Bank's future include: trends in financial services and technological developments, and broader environmental changes that seem to be growing in significance, like the possible impacts of a European currency. Each attendee has two tasks: first, some weeks in advance to prepare a presentation on a subject, and second, to chair a debate on a colleague's presentation. According to Browning, Burt is adamant that this forum is not for making decisions; care is taken not to reach agreement on what may be seen as hasty convergence on some issue.

5.5.2 Bottom-up

The Bank did have a central strategic planning function, when that was fashionable in the late 1970s, but this was scrapped in the early 1980s. Indeed according to Brobbel of CSD, the Bank has always had "an aversion" to writing (long term) strategic plans. This seems uncharacteristic of a large organisation where caution and deliberation in decision making is stressed; where stewardship is the guiding principle. However, it may reflect and support the

'opportunistic' culture that staff believe exits within the Bank. Many managers appear to think that strategy in the Bank emerges 'bottom-up' fashion.

Divisions are expected to make their own strategic choices, but as Campbell, General Manager of International, and Brobbel of CSD notes, proposals need to be approved by the Management Board and Main Board. The Management Board's approach to dealing with Divisional proposals is much more murky than the application of codified project selection criteria and financial hurdles. A similar relationship exists within Divisions, where suggestions from all levels are welcome, and channelled toward Divisional senior management for consideration.

At Card Services Division the Divisional General Manager and the two Assistant General Managers share the top floor. On the next floor down are the six Deputy Managers' offices. These managers are in an area clearly separated from the rest of the staff. The allocation of space and location of personnel within the building suggests that senior managers are set apart from their subordinates. Senior managers have much more opportunity for informal meetings among themselves than for meeting their respective staff. Contact with their respective departments requires greater effort to leave their office area to go to the work area of their staff, and the amount of contact depends on the time managers spend in those work areas. According to Colin McLean, Deputy Manager of Administration, strategy is largely the province of the Divisional General Manager and his two Assistant General Managers. Deputy Managers and their subordinates contribute to strategy making through their respective hierarchies to the appropriate Assistant General Manager.

The example of CSD suggests that the scope for individual contribution to the Bank's strategic development becomes increasingly localised lower down the hierarchy. Such contributions may reach senior management through one of the suggestion boxes, internal public reports or other local incentive schemes, but the hierarchy acts as an information filter, and perhaps 'bottom-up' means two different things. One meaning describes the input to strategy making from Supervisory and Clerical staff, and seems to be focused on localised productivity improvement schemes. Suggestions travelling from anyone within a Division,

go through their chain of command to the leadership of their Division. These staff are a mixture of junior career people, and part-time staff presumed not to be seeking a career, for example CSD's "married ladies" (Fincham *et. al.,* 1994: 87). The work force tend to have clearly defined tasks that also define their scope for creative and useful ideas. Indeed as Duffy of MSD admits, even project management in MSD tightly defines engineers' scope for innovative excursions.

Another meaning of bottom-up relates to major capital investment proposals (automation, acquisitions, joint ventures, etc.) that are discussed in the upper levels of the management hierarchy where the 'worker bees' have very little influence if any at all. The influence of middle management and junior staff is perhaps further bounded by what they take for granted as the given top-down strategy, as well as not being practised at discussing what is currently regarded by senior management as hot strategic topics.

In principle senior management, either at Board level or Divisional level retain full control of formal strategy development, although as has been noted by other researchers, top management often make decisions using information filtered or selected by those with particular expertise or positions in the hierarchy. For example MSD can and do in varying ways define the discussions on technological issues that business Divisions engage in. In the pursuit of efficiency gains the Bank's leadership does not rely solely on bright ideas and experience of staff doing the work. As noted earlier (5.3.2) within CSD there are staff whose main function is to study and measure work processes, and provide information that forms the basis for many changes in practice.

5.5.3 Musical chairs

In 1994 Pattullo, the Bank's Chief Executive reshuffled most of the Divisional General Managers. For example, Campbell moved from Centrebank to International, and Mitchell went from Treasury to Centrebank. Senior managers believe that such moves generate real scope for personal development and promotion, and helps keep them on their toes. Mitchell

believes that "reshuffles help build relationships, trust, a broader awareness of how the Bank functions, and the movement of new ideas". He sees the reshuffle as a way of preventing the General Managers from becoming stale. He noted that most people in senior positions were quite young, typically under 50. Gone were the days when seniority meant you had to be 50 plus. He certainly did not look forward to spending another 10 - 20 years at Treasury, even though he enjoyed the high pressure life that went with it.

The reshuffle does seem set to shake up the way the Bank's Divisions work. For example Campbell has been given the objective of broadening International's business spread, away from being UK dominated. He plans to improve the International Division's working practices; he sees the need for a more structured approach to strategy making than currently exists in that Division. Both Mitchell and Campbell are aware of having to reconcile their experience and familiarity with running a different business for the last five years, with the peculiarities of their new responsibilities; where there are very different working practices and assumptions about how their new business should be run.

Mitchell for example sees a major difference between his old post in Treasury and the new life as General Manager of Centrebank. When asked to compare Treasury with Centrebank he agreed with my suggested analogies of a helicopter and an ocean tanker. In Treasury, decisions taken at Monday morning's 10 am meeting could be overtaken by midday because of movements in the financial markets. His job in Treasury was to be able to respond very quickly to market changes. In Centrebank decisions taken this week or month were unlikely to be overtaken by events this year, possibly not even next year. Mitchell's experience of how to run Treasury seems to give him a heightened concern for responding quickly to market conditions and trends. While recognising that Centrebank is a different business to Treasury Mitchell feels that Centrebank is a little too slow and unresponsive. He is looking for ways to shake up working practices, and is more eager to see new product ideas emerge. For the foreseeable future he may be inclined to attach more significance to short-term movements than his predecessor.

Major reshuffles like this describe an orderly five yearly rearrangement of the top table. General Managers approach their new tasks with different assumptions about the best way to run a business, with different dos and don'ts, those invisible barriers to change, including the tendency not to test boundaries that come with the embedding of routines over time. Any number of the General Manager's precepts are also likely to contradict or conflict with established practice in their new domain. This bringing together of old ways and new situations creates space for innovation; it rings of Schon's (1963) analysis of the nature of innovation, an issue that is further discussed in sections 7.2.5 and 9..2.5.

The personal career progression of some of these managers reinforces the sense that the Bank actively engages in providing room for personal development and setting the conditions for new ways of thinking to emerge. Richardson of MSD has been with the Bank for over 35 years. In that time he has worked in Branch banking, data processing, internal audit, and systems analysis. Browning started his working life with the Bank, left and worked in teaching for some years before rejoining the Bank, where he has held various senior management positions. Movement is not the preserve of senior managers. Supervisors and Clerks move around too. Branch staff from UK Branch banking have moved to a Branch Support Team within CSD, and to PhoneLine, the new telephone based banking service temporarily resident in MSD.

However, the Bank is more than a training ground for professional development. Careers depend on how effectively managers assimilate new capabilities and create new opportunities for the Bank.

> [The promotion] of personnel, at all levels, across divisional boundaries [helps] to identify and test "high flyers" as to their individual capacity to grasp the principal features of their new roles in unfamiliar areas and consequently to reaffirm their candidacy for promotion to the most senior echelons of the Bank *(Browning, 1993 paper for City financiers, pp. 6).*

"High flyers" are those pursuing a career with the Bank, and show their commitment to the banking profession through professional training. All managers in the Bank's executive tier are Members or Fellows of the Chartered Institute of Bankers in Scotland. The "high flyers"

are those who demonstrate a "tacit ability"[7] to synthesise new and assimilated expertise in ways that reinforce the Bank's professed "instinct for innovation and professionalism" *(Browning, 1993 paper: 7).*

The expectation of the Bank's leadership is that individual competences, and accumulated competences of managers in new posts, whether through reshuffles or individual movement, will contribute to the Bank's competitive advantage and performance by overseeing novel and profitable ideas. These changes may invite ideas that push at the boundaries of stewardship, but they seem unlikely to overthrow that guiding principle. The Bank's history, the top down approach to strategy, and Campbell's account of strategy development described later, together reinforce the sense that stewardship remains a strategic point of reference for all innovative behaviour.

5.5.4 Politics and shaping boundaries

> The Boards and Executives of each company have relatively autonomous authorities although each operates within the non-egotistical culture of the organisation and within broad policy guidelines relative to business areas, capital structure, dividend policy etc. *(Browning, 1993 paper: 6).*

In saying that the Bank has a "non-egotistical culture" Browning seems to be saying that staff are not engaged in political games in pursuit of what he calls "self-grandiosity"; that there are more than enough interesting opportunities for personal development without coming into conflict with others. In Browning's view staff do not have the interest or time to spend on "serious and destructive" in-fighting. Nevertheless, the conditions for political behaviour do exist, and its existence is acknowledged by others. I found two situations where political behaviour is evident.

The first, at the individual level, is connected with the reshuffle. It seems reasonable to imagine that comparisons between individual characters would be made in private both

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[7] Faulkner and Senker, in their research on links between public sector research and industrial innovation found that "research directors [see] formal qualifications as evidence of researchers' tacit ability to acquire and use knowledge in a meaningful way, and regard this attitude of mind as a most important contribution to innovative RD&D" (1995: 202).

before and after a reshuffle. In selecting which General Manager should manage which Division the Bank's top three (Governor, Group Chief Executive, and Treasurer) have the most influence. Evaluating an individual's personality and past performance at managing interpersonal relations in itself involves making subjective judgements about an individual's strengths and weaknesses. Once installed, peers and other colleagues are very likely to compare the new General Manager with the outgoing one. This is evident just from interviews with managers, some of whom jokingly asked what others had said about them. One even ventured a very mild criticism of his predecessor's management of his Division, but retracted it quickly as "unfair". Power and influence appears to broadly reflect the authority structure. Any deal making or pursuit of personal interests seem to be subordinate to a respect for the established pecking order.

The second form of political behaviour revolves around the drawing of Divisional boundaries. Spowart, Divisional General Manager, Branch Banking, East Scotland, does acknowledge that politics is inherent and plays an important role in a large and complex organisation like the Bank. He suggests that the juxtaposition of Divisions with potentially overlapping scope for development leads to "jockeying for position" and that politics "can curtail development" of the Bank.

In particular Spowart noted that Centrebank is tasked with concentrating on developing remote banking in England, but that it could spread its operation to Scotland, where there is a need for telebanking. This however would lead to cannibalisation of the Scottish market as Centrebank and the Scottish Branches would compete with each other. For this reason Centrebank is under orders to keep its focus on England where it is doing well in any case, and leave the domestic Branch Banking Division to develop Scotland. With this in mind PhoneLine was being introduced as a 24 hour available extension to the Scottish Branch network. It is configured as an extended service to Branch customers, rather than an as extension to the existing remote banking infrastructure of Centrebank. The PhoneLine initiative has been forced by both competitive action and internal political developments. Externally, remote banking is well established with First Direct, Centrebank and other

competitors, and the sector continues to grow. Indeed the Bank's domestic Branch Banking risks losing customers to this segment of the market. Internally, there is a threat to Scottish domestic Branch Banking as existing customers of Branch Banking could transfer their banking arrangements to Centrebank.

PhoneLine would be interpreted and adapted differently by Centrebank and Branch Banking. Both Spowart and his boss Masterton want PhoneLine to be a part of the Branch Banking Division rather than see it become part of Centrebank. Spowart's view is that the Bank is first and foremost a Scottish Branch Banking business, and Scotland is still its main market. Developing the Scottish market should grow out of the Bank's existing Scottish infrastructure, that is its domestic Branch Banking network. According to Spowart, Masterton who is "the third man in the Bank" being the Deputy Treasurer, is a key player in the Management Board's decision making, and Masterton was determined to see PhoneLine installed as an extension to Scottish Branch Banking. The scope for interpreting the openness of a technology, discussed in 2.6.2, suggests that Masterton is intent on adapting the PhoneLine technology to reaffirm and redefine the boundary between Scottish domestic Branch Banking and Centrebank. Spowart and Masterton want to have PhoneLine up and running as soon as possible. The suitability of CSD as a location for PhoneLine was presently being assessed by Brobbel, General Manager of CSD on behalf of the Management Board. Spowart and Masterton want it located in CSD, not as part of CSD but to "piggy-back" on CSD's expertise in telephone based banking services.

The Bank does not appear to be a nest of cut-throat individualists, but neither is everyone politely giving way to everyone else. There is political behaviour, and one of its manifestations is the reaffirmation of territorial claims between Divisions. With an eye on the horizon Spowart also offered a personal view that CSD, Centrebank, and now PhoneLine were sufficiently similar to consider reducing the need for three General Managers. They could be brought together, perhaps as one remote banking Division.

5.5.5 Probing 'policy guidelines' and 'opportunism'

Campbell's remit to develop the International Division's business presents him with the problem of deciding what constitutes a business that fits within the Bank's broad "policy guidelines". He knows that some of his alternatives could generate inter-Divisional tension or conflict as with PhoneLine above. More fundamentally, developing his ideas involve the probing of both his and his colleagues' understanding of the Bank's policy guidelines on business development. Campbell's experience in the Bank tells him that interpreting his scope for growing the International Division is an experience that he must share with his colleagues. In thinking about ways to develop his business he knows that in addition to the Bank's "guidelines" there are other unstated limits. For example, while some options fall within 'financial services' they may still be unacceptable to the Management Board. One guideline states that a potential acquisition should not be so big as to weaken the Bank's financial security, nor should it be so small as to make little difference to the Bank's income stream. Campbell's interpretation of this guideline is that there is an acquisition window of between £100m and £500m, but adds that other managers would apply different numbers, though probably not far away from his own.

Campbell talks of "flushing out" these unstated limits, of pushing at the invisible boundary. He will float an idea with individual colleagues and with the Management Board team. He then interprets the responses: unfavourable, favourable, not sure, not now, maybe next year, and so on. In this way he develops a tacit understanding of where the acceptable avenues of business development are.

Managers of other Divisions, in observing the progress of CSD and Centrebank, see lessons for the development of their own businesses. The Branch Banking Division for example is reorganising various functions of its Branches and is following CSD's automation of paper handling. Brobbel believes that the Bank's executive sees CSD as fundamental to the Bank's long term survival in the sense that 'distance banking' is here to stay. First Direct (phone banking) continues to grow, and the Royal Bank's Direct Line (insurance and mortgage

sales) is growing fast. In shaping strategy, individual Divisions seem to be learning from each other and competitors, by reinterpreting each other's technologies and work organisation practices in light of their own situation. Nevertheless, this juxtaposition of new ideas in old situations, and vice versa remain guided by the principle of stewardship.

Each year the Report and Accounts present a picture of well thought out and implemented strategy, yet interviewees talk about 'opportunism'. Their accounts suggest that both the process and content of strategy making is shaped through discourse, practice, and is always open to revision within the bounds of what Campbell calls "ground rules [and] unstated prejudices". One reason for this seems to be that no matter how many procedures and guidelines, or how well defined the role of individuals, there is still huge scope for multiple interpretations of possible futures, such as deciding whether a particular acquisition target is too big, too small, or in the right or wrong sector, or whether some technology is strategic or not. In presenting, arguing, and testing particular views of the future the Bank's managers take ownership of parts of the strategy, and indeed derive a sense of identity from their part in shaping its process and content.

In taking control of part of the Bank's strategy Campbell sees opportunism as something of a pretence, and an "inefficient way" to develop strategy. Campbell considers his options for generating new earnings, and being new to the job his idea of the range of options is probably different to his predecessor's. In reflecting on the vast range of possibilities he concluded that in his "judgement opportunism is too inefficient" because there are more options than he could ever assess, and anyway the Executive would veto many of those options. For example, mortgage swaps with US banks would deplete the UK risk and increase non UK income in one go, and so "would be a bloody good solution" Campbell thinks. Alas, he predicts that the Branch Banking Division would take a dim view of reducing UK mortgage income.

This section has explored the Bank's strategy process, in particular the importance of formal forums, periodic reshuffles, and opportunism. For this bank being innovative is not at odds with good stewardship. Indeed managers are confident that their periodic reshuffling, annual conferences, opportunism, and bottom-up processes serve to blend conservative values with

creativity. The next section explores those managers' views about two innovation successes (HOBS and TAPS), and some of the issues surrounding the possibility of exploiting the concept of Affinity cards.

5.6 INNOVATION

The Bank's heritage and aims describe a frame of traditional values, a sense of hierarchy being the natural order, and a concern for taking care of the details of today in the interests of long term aims. It is within this context that many managers talk about the Bank as being innovative, even the most innovative bank in the UK, although a few managers see the Bank as no longer being at the forefront of banking innovation. Mitchell, the new General Manager of Centrebank suggests that the Home Banking innovation (HOBS) was a one-off, an accident, and that some people in the Bank are "still dining out on it". Interestingly, Browning disagrees strongly with this assessment of HOBS.

In addition to HOBS and TAPS discussed below the Bank cites many innovations in its more recent history:[8] The first UK bank to introduce centralised electronic accounting in 1956, and partnerships with the then Nottingham Building Society produced the banking innovation 'Homelink' in 1983. In the same year the Money Market Cheque Account (the first high interest cheque account from a joint-stock clearing bank) was launched, and in 1984 the BankSave Account.

5.6.1 HOBS

Many managers have said that the Bank's reputation for being innovative stems from HOBS (Home and Office Banking System). Home Banking was launched in 1984 and in the following year the Office element was added to produce HOBS. Until the late 1970s there was an unwritten agreement between the English and Scottish banks, that neither would cross the border. The booming North Sea oil business attracted English banks who started moving

[8] Bank of Scotland Fact Sheet on Innovation, December 1989.

north, thereby breaking the 'no competition' agreement. The Bank's reaction was to look for ways of getting into the English market quickly. Senior managers looked around at their resources, found a budding technology which could be used to tackle the English market without the huge costs of setting up branches, and HOBS was thrust forward as an innovation ahead of its time.

Given the prevailing industry view that banks need to open branches if they are serious about a particular market, some suggested that HOBS could be seen as a low cost, low risk attempt at getting into England. Indeed HOBS addressed two concerns of the Bank. First, the Bank did not want to compromise its public trust, reputation for reliability and predictability, and did not want to detach itself from good stewardship. Against this, the Bank's leadership thought that the Bank was in danger of losing control of its competitive position in Scotland, if some action was not taken. HOBS was an attempt to accommodate a threatening situation. Industry commentators hailed the Bank's innovativeness, and staff and managers thought of themselves as being part of an innovative Bank. However, this feeling seems to be wearing off. Richardson of Management Services, is a little disappointed that the Bank's claim to be the first to introduce remote banking seems to have gone from the public's memory, who erroneously credit First Direct with that achievement.

Today very few people realise that Centrebank was seven years ahead of First Direct. Perhaps part of the failure to recognise HOBS' place in history is that, like many radical innovations, it was, with hindsight, initially technically crude. Accessing one's account was more than a telephone call. One also had to connect the telephone line and a keyboard to a television, thus turning the whole arrangement into a crude remote terminal. Remote banking had arrived but new entrants immediately sought to differentiate themselves through commitment to alternative 'design configurations' (Metcalfe and Gibbons, 1989): remote telephone banking, as offered by First Direct; and remote terminal based banking, as offered by the Bank of Scotland. The technological agenda is not given but open to competitive interpretation and action (see 2.6.2). There have been many post innovation improvements to HOBS. For example, the Bank now offers what looks like a normal video phone.

Alternatively, if one has a computer and modem, the Bank can provide, or advise on, a suitable software programme for interrogating one's designated bank accounts. Browning says that HOBS became profitable by its third year of operation, and suspects that other banks have been slow to copy it because it is a radical departure from conventional banking, with all the attendant risks of failure.

5.6.2 TAPS

The Bank's managers recognise that financial success (growth in market share and asset value, and profitability) goes to the organisation that creates or spots an opportunity; and responds to it creatively, through the management of innovations in technology and work organisation. Richardson of Management Services sees innovation as "a business led issue, [involving] ... a bit of vision and lateral thinking in the business". He quotes as an example the development of the Bank's Transcontinental Automated Payment Service (TAPS) business, which involves the international transfer of low value payments. This business grew out of someone in the Bank spotting an opportunity. The UK Department of Social Security (DSS) was looking for ways to reduce the high cost of administering hundreds of thousands of pension payments to UK citizens all over the world, where each payment was very small. Meanwhile someone in the International Division asked MSD if there was some way that the Bank could exploit this, perhaps by handling the distribution and administration of these low payments, on behalf of the DSS.

The result was that in 1987 the Bank developed a payment system, and won the contract from the DSS to deliver these low value payments world-wide. In 1989 International Division was processing over 200,000 transactions per month, and the number continues to rise. Everyone was a winner. The Bank found a new source of income, the DSS substantially reduced its costs, pensioners got their money faster, and all at a lower transaction cost. The Bank has learnt from its experience of developing a niche opportunity and has found a way to broaden this concept. It now offers the same service to companies with similar needs. In Richardson's view MSD's role in this example was as a technological enabler, a facilitator. In

Richardson's terms innovation is about having "reasonably good ideas which [the Bank] has been able to take to the market".

This example presents the Bank as being entrepreneurial, as being the first to see the opportunity and develop the market. With HOBS the Bank perceived a competitive anomaly rather than an opportunity, and reacted to it in an innovative and serendipitous fashion, thus creating a new market. The 'technological' in the HOBS and TAPS 'configurations' seem to have grown out of assimilated technological capabilities following the birth of MSD, itself the product of the Bank reversing an earlier decision not to develop ATM technology (Scarborough and Corbett, 1992: 148).

The examples of HOBS and TAPS suggest that technological innovation is much more than the TAPS computer programme, or some telecommunication network. TAPS for example, is a competitive innovation and its usefulness does not just rest with the software, but depends on a tangle of hardware and software (computer and telecommunication systems), payment recipients, operating institutional partners (the Bank and the DSS), operational rules (financial transaction and data processing), and held together by the expertise needed to make the whole sociotechnical system work. This expertise is not centrally held and managed as some sort of grand plan but is distributed among the co-operating institutions. The interrelationship and inseparability between the social and the technical in these examples seem comparable to Hughes' (1983) analysis of the influences shaping the development of national electric power networks as 'sociotechnical systems' joined as a 'seamless web' of interactions (see 2.6.2).

5.6.3 Affinity Cards

The constant drive to improve profitability and remain competitive translates into a never ending hunt for efficiency gains, often involving technologies and work organisation practices that take competition to ever increasing levels of sophistication.

Chris Brobbel, General Manager of CSD, sees 'the best way to compete in this business' as an issue of doing something differently and better than the competition. In Brobbel's view CSD offers a quality service, but doing something different is now an important issue because there is very little to distinguish between the many card services available from the various financial institutions. They may vary by £2 in terms of the annual fee or a couple of percentage points on the interest rate but that's about it. Brobbel sees this as a position that is unacceptable for CSD to be in.

The trend towards 'affinity cards' is seen both as a significant threat and an opportunity. Affinity cards come into being where a financial house and a commercial organisation jointly issue a credit card, for example, General Motors (GM) and Household Financial Corporation (HFC), an American bank. The benefit to GM is that it lowers the barrier to the purchase of a GM vehicle because holding a GM credit card removes the time consuming need for setting up a financing agreement, and checking of credit ratings. GM is further able to benefit from the professional and automated credit payment processing facilities of the financial partner. The financial partner also expects to share the profit generated by the purchase of say a GM vehicle, perhaps through a loan to buy the vehicle, and a charge to GM for processing each card transaction. The financial partner further benefits from increased transaction throughput which helps to lower unit costs, and increased market share of card transactions. CSD and GM had been in negotiation to issue an affinity card, but GM chose to tie up with HFC. Although CSD successfully demonstrated their credentials to GM, HFC was probably chosen because GM (USA) are familiar with and have some form of satisfactory relationship with HFC (USA), even though HFC is a smaller player in the UK.[9]

The CSD story highlights that in a competitive context organisations are not only competing for customers. Financial success may also depend on having partners, as is suggested by the setting up of CSD on the basis of getting third party processing contracts, and now the search for an affinity partner. The story also reinforces that ever increasingly sophisticated automation equipment is but one actor in a continual process of competitive innovation,

[9] HFC UK has an arrangement with Living Design and possibly others.

involving a shifting pattern of relations between hardware, the Bank staff working with the equipment and systems (routinely raising initiatives to reduce costs/improve productivity), the Bank's managers, customers, partners, and competitors. Competitors are an integral part of this network both in terms of co-operative relations, and in terms of competitive pressures. Even when the competitor is a customer the pressures remain. As mentioned earlier (5.3.2), at least one processing account was lost because the third part decided that they would handle their own customer enquiries, and they found a competitor to the Bank that would process cards more cheaply.

These set backs do not make CSD managers question their strategy, rather such experiences help to make them redouble their efforts, and to find new ways of improving productivity and being more competitive. For them these experiences reaffirm the criticality of market share and productivity. The search for ways to reduce processing time continues unremittingly: reducing cheque processing and other paper handling time; reducing the time taken to process telephone based customer enquiries; reducing the time that money is in transit.

The CSD strategy is a mixture of pursuing productivity levels and growth of market share. Brobbel believes that there is a trade off between the two, and this can be seen in most of the CSD competitive innovations. For example increasing throughput and increased automation will improve productivity, and enable CSD to offer competitive processing rates to potential users. Equally, competitive rates depend on keeping customers, and pursuit of market share by lowering price will compromise growth in profitability. This situation is not unusual, but the example of CSD does bring out the virtuous and vicious circle qualities of competition. CSD manages the trade-off by extensive use of computer modelling by the planning department where price and demand elasticities are assessed.

"Hopefully", says Richardson of MSD, "we'll keep those [good ideas] coming, good business initiatives, and hopefully we'll find the technologies to help support them".

5.7 CONCLUSIONS

Strategy in the Bank seems purposive yet incremental (see 2.3.2). This is not at odds with the claims by some interviewees that the Bank's strategy is based on 'opportunism', because logical incrementalism involves a readiness to experiment and learn, as HOBS, TAPS, and other innovations show. Consistent with logical incrementalism senior managers in the Bank tend to look for consensus among with their peers, though this does not normally extend to lower ranks.

The Bank of Scotland's managers share a strong sense of stewardship, the continual pursuit of efficiency gains reinforced over three centuries of operation. They seem to put their concern for the Bank's well-being before self-interest, and desire that as far as possible their actions should be above criticism from their public. These concerns add up to a way of life for the Bank's managers, and the practice of strategy is an embodiment of these influences. Managers also believe in the Bank's innovative capability, seeing no conflict between the two positions of stewardship and innovative behaviour. For them conservative and prudent financial management, and creative use of technology can and do complement each other, and can show a long list of innovations to support this view.

Underlying the feeling of stewardship that managers share, is an assumption that they do have control in managing the Bank's relationship with its external environment. Perhaps critically for the Bank, the financial services environment seems sufficiently stable to allow the Bank, its competitors, and other stakeholder groups, to take a measured approach in assessing their options for development, and the room to change their minds if necessary. At the same time that external environment is sufficiently unstable to remind the Bank that it must continually hunt for efficiency improvements as well as look for novel and useful ways of delivering financial services.

This account suggests that the practice of strategy seems to be the embodiment of an organisation's way of life, or social reality, incorporating a range of 'taken for granted' ideas and assumptions. Chapters 7 to 10 explores the ideas and assumptions that shape the practice

of strategy and the scope for innovation, including why strategy may be characterised as logically incremental, managed chaos, or some other form.

6

Open Business School

6.1 INTRODUCTION

This chapter describes strategy practice in the Open Business School, and its relationship with the Open University. It draws on interviews with twenty four staff, carried out during the spring of 1994. The account is based on the views of academics and administrators both within the Open Business School and from other units of the wider Open University. Other sources include internal memos, plans, and public documents.

The case shows how strategy practice is shaped more through social relations among individuals as equals than among individuals with ascribed roles within a hierarchy. The practice of strategy is distributed among key individuals and numerous committees; a process that is underpinned by its values of open access and equal opportunities. It also highlights the common practice of testing as many strategic options as possible, whether through scenario plays, or a myriad of working groups and sub-committees, before committing to a particular course of action.

6.2 HISTORY AND SIZE

6.2.1 Size and performance

The Open Business School (OBS) is one of the Open University's Faculties and is sometimes referred to as the School of Management, or the Business School.[1] The OBS is in the business of distance learning. It develops and delivers courses in management to students studying at home. Teaching is done 'at a distance' via printed course material, video and audio tapes, and assignments which students must write and be assessed on, plus some

[1] Some time after this study the business school changed its name to the Open University Business School.

television programmes although these are now rare. These media are supported by some face to face teaching which is organised on a regional basis. Regions appoint tutors who lead a group of about fifteen students through the course; meeting with them at a local study centre for a couple of hours every six weeks; marking their assignments at predetermined intervals during the course, and generally being accessible to their students by telephone. Most courses also require students to attend an intensive weekend or week long Summer School.

There are about 150 full time staff at the centre (Walton Hall), under the leadership of an elected Dean, organised as various grades of academics, administrative staff, managers, and business development people essentially responsible for sales and marketing. Academics, who may be centrally or regionally based, contribute to both research and course production. Administrators including secretaries and managers are organised around the school's main activity of course production and delivery, including: draft preparation, editing, design, liaison with audio visual providers, summer school planning, and examinations.

Some staff are permanently based in the Open University's (OU) 13 UK Regions. Typically each region has a Regional Director whose team is responsible for managing the interface between the OU's Faculties and the student body. Within this regional structure each Faculty, except OBS, is represented by a Staff Tutor who may also contribute to course development at the centre. The OBS is represented by a Management Education Co-ordinator (subsequently renamed Regional Manager), one or two sales people (called Management Development Advisors), and perhaps a promotions assistant. Across all regions there are about 1000 part-time OBS staff, mostly tutors and student counsellors, providing local academic support to the student population. Tutors are not permanent members of staff; they work under short term contracts, typically one year at a time.

Turnover or fee income for 1993 was about £17m and comes from two sources. One income stream comes directly from students or from employing organisations sponsoring their staff on various courses. The second comes from the Higher Education Funding Council (HEFC) which grants the OBS about £800 for each student registered each year. About 70% of the fee income comes from sponsoring organisations. There are about 10, 000 students enrolled, and

the school estimates its market share of all UK MBA students to be 12%, and 40% of all UK based distance learning programmes in management education. Its growth projections suggest that within the next two years the OBS will account for about 20% of all new UK MBA graduates, which would make the OBS the largest producer of MBAs in Britain after only about ten years of operation *(Source: The Open Business School In Scotland, Tutor Newsletter, September, 1994).*

Such rapid growth and market domination has been accompanied by a general growth in demand for management education, as well as increasing competition. The higher education sector in general has also been spurred on by government initiatives to improve the quality of education and the range of professional development channels available to individuals. The degree of competition that OBS is experiencing now, has never been experienced by the other Faculties of the OU who together cater for about 70%-80% of the UK part-time undergraduate population.

6.2.2 The scramble of the early days

The OBS grew out of an ad hoc Open University unit, the Centre for Continuing Education (CCE). Although the school formally became a faculty in 1988, it had already been operating for about four years, experimenting and producing short courses, under the leadership of Lund, an ex RAF management development expert. According to Masterton, School Secretary (like a Company Secretary), the Open University Senate gave political support to the development of courses as long as the Continuing Education team could find financial support from outside the University. The CCE were able to raise enough sponsorship money and the first course, The Effective Manager was produced in 1983.

When the school formally achieved status as the Faculty of Management a new post of Dean was created, and Professor Thomson was recruited from Glasgow University. According to Salaman, a central academic who chaired the first course on personnel management and training, Thomson's primary goal for OBS was "to locate it institutionally". This involved

cementing links with the many bodies "out there" like Management Charter Initiative (MCI), NVQ, HEFC, and representatives of the professions like the British Institute of Management (BIM). At the same time Thomson worked within OBS to rapidly expand both new courses and student numbers. The OBS seemed to be pushing at a market that was expanding as fast as they could push. Even more courses had to be produced to make sure that there were options available for those already in the system. As Salaman commented, "there was a war out there, we had to get the stuff out, we weren't too worried about how efficient we were". Staff recruitment had less to do with building academic excellence and more to do with building market position. One had a better chance of being recruited to OBS on the claim of expertise in teaching and management experience than publications record or the capacity to do research. Within this "customer is king" culture, management research was a luxury.

These priorities were very much in keeping with Thomson's view that management professionalism and competencies in Britain were very poor at all levels. He felt that the OBS was very well placed to address those weaknesses. As a leading public figure in some of the institutions with which he sought to cement links (he was Chairman of the Management Charter Initiative and Chairman of The British Academy of Management), he wasted no opportunity in spreading the word about the low level of management education and the OBS's ability to make an impact there. Staff spoke of the OBS organisation being stretched to breaking point as more courses were demanded, student numbers escalated, and more writers recruited. Along with this growth in the UK, the OBS moved into continental Europe, promoting its courses from Portugal to Russia.

All interviewees expressed the view that, under Thomson, OBS staff experienced such a whirlwind of change and activity, that systems and individuals were fast approaching a crisis. Masterton, the School Secretary, recalls that "organisationally the place was in a mess. Records were not being kept, not even people's holidays were being recorded". On the other hand there is a general consensus that under Thomson the OBS went from being a minor player to being the biggest UK business school almost overnight. Others suggest that given

the Open University's profile, the overall rise in demand for management education and general economic growth, the OBS's destiny was predictable.

Thomson is credited with establishing the OBS as a legitimate force in distance management education, indeed a few like Henderson, a central academic and Deputy Director of OBS, regard him and his predecessor Lund as "one of the few strategic thinkers in the School". However, as Thompson approached the end of his term in office it seemed that staff were saying 'enough is enough' and there was now a desire for change. In accordance with Open University rules, after five years the post of Dean was put up for internal election. Asch, a senior academic within OBS, won this election on the promise to restore order to the OBS. Asch, was one of two challengers for the post, and had been with the OBS for about seven years during which he successfully chaired the introduction of a new course to add to the MBA portfolio. Salaman recalls that the election carried overtones of a fight between "the forces of good and evil, the dark days of old and the promise of light in the future". Thomson's term came to an end and Asch became Dean around April 1993.

6.3 WORK ORGANISATION

6.3.1 Bringing order

Following his election to the position of Dean, Asch initiated changes to the OBS management structure as a first step to keeping his election promises: to make decision making more transparent and democratic; to curb the existing expansionist strategy; to put more emphasis on building up the OBS research rating; and to do something to accommodate the career aspirations of academics.

During the first few months of Asch's term of office, the senior management structure was reorganised into two parallel and interwoven decision making tracks, one based on committees (see appendix 4) and the other on a management hierarchy (see appendix 5). The committee structure consists of five formal reporting Boards, all reporting to a School Board which the Dean chairs: the Academic Board, Business Development Board, Finance, Staffing

& Resources Board, Presentation Board, OBS Management Committee. The second decision making track, reporting directly to the Dean consisted of five main functions under management control; Course Presentation, External Affairs, Company Administration, Centres, and Research.

According to Cameron, Director of Course Presentation, the biggest changes were in "the governance structure" with the introduction of a Presentation Board with equal status to the Academic Board". The rationale for the elevation of Course Presentation was in recognition of the need to explicitly create some space for the Regional staff "out there" to influence decision making at the centre. As Cameron observes:

> logically you probably don't need [both a Presentation Board and an Academic Board] because an Academic Board ought by rights to be considering both aspects. But because of the way this institution is structured, and the fact that the Regions are out of sight and therefore out of mind you get a wonderfully isolated view of the world from your ivory tower here. We felt that at least until we changed peoples' perceptions sufficiently, we needed to have a Board with that status; that would have to approve course proposals; that would actually be charged with looking at all these presentation aspects specifically so that they don't fall off the bottom of the agenda of the other Board *(Cameron)*.

Many of these changes at the Centre rippled throughout the OU and its Regions. For example, OBS took full responsibility for its own marketing, rather than continue to use the central OU resource of Business Development and Marketing (BDMO). With the creation of External Affairs (a sales and marketing function), Management Education Co-ordinators (MEC) moved from BDMO to OBS. Later another layer of management was introduced between MECs and the centre.

6.3.2 More research and career planning

Asch thinks the OBS has a severe imbalance between teaching and research which needs to be corrected, and that the reputation of the school rests on being excellent in both course production (teaching) and research. Consequently five new posts were created and filled by new academics with a strong research background. At the same time, under the leadership of

the Director of Research, Professor Pugh,[2] seven research groups were created: International Management Research, Strategic Management, Human Resource and Change Management, Distance Learning in Management Education, Finance and Accounting, Small and Medium-sized Enterprise, Voluntary Sector Management, Information Management, Management History.

The Research Groups are expected to contribute to OBS teaching activities. Indeed Pugh sees ample scope for developing links between research and distance teaching:

> because of the nature of the Open University distance learning methods, research results can readily be incorporated in the written material which forms the basis of our teaching. This is an important output of our research work *(BAM News, No. 1, 1994).*

Also initiated at about the time that Asch took office was a career development structure considered to be appropriate to the peculiar nature of the OBS academic collegiate environment. The problem was that in the hustle and bustle of course writing and research, academics' contributions were not being formally acknowledged, and this could affect their career development. Academics did not want to surrender their ability to pursue independent interests, but at the same time wanted to feel that there was a mechanism for career review and promotion.

Thus five 'Centres' were created, each electing its own Centre head or manager, covering a number of broad churches: Comparative Management, Development and Financial Management of Organisations, Human Resources and Change Management, Information and Innovation, and Strategy and Policy. Individual academics and administrators were strongly encouraged by Asch to choose one of the Centres as a home where like minded people could share ideas, publish papers, hold seminars, and generally treat their Centre as a resource. At regular periods the Centre head would sit down with each academic to discuss career aims, including planned or proposed research activity, and course writing commitments.

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[2] At the time of this research, Professor Derek Pugh was in the process of retiring. He has been with the school since 1988 and there is some concern internally that Derek Pugh's reputation as a sort of Elder Statesman of organisational research will be difficult for the OBS to replace.

6.4 STRATEGIC AIMS

6.4.1 Open access

At the heart of the OU and the OBS is a belief in 'open access' and equal opportunity for all; a belief that it has a mandate to enrich the lives of ordinary people. Staff see the OU as being eminently qualified to bring higher education to the populace. The Open University Strategic Planning and Resources Committee (SPRC) Academic Board, Plans for Change, 1994-2003 opens with a statement of the Open University's "vision":

> The Open University's ideals and impact have captured the imagination of the 20th century world. Its ideas and innovations will now lead higher education into the 21st century. Academic vitality and quality teaching will harness evolving information technology to provide convenient and cost-effective courses that will empower an increasing diversity of people to lead fuller lives.

The SPRC goes on to describe the Open University's "philosophy and values". At the core of this philosophy are a number themes: openness, supported open learning, research, quality in teaching and research, breadth of course choice, equal opportunities, and co-operation for mutual benefit. "Openness" is described in some detail, and defined in relation to a variety of issues: people, places, methods, ideas.

Within this broad direction the Open Business School's mission include the provision of "high quality management education and development education to large numbers of managers" *(School of Management mission statement 1994-98)*. Appendix 6 shows the OBS mission and priorities. OBS differentiates itself from its competitors through claims of open access, practical relevance, and the quality of its teaching material. OBS is also beginning to tell multinational companies that the OBS is accessible internationally, and at a uniformly high standard.

6.4.2 Promoting strategic thinking

Peters, OU Pro Vice Chancellor for Strategic Planning sees his job as being to "promote strategic thinking and the articulation of our strategy". His aim is to get the University to be

more aware of its own implicit strategy, and to articulate that. To this end he produced the University's first Strategic Plan, consisting of a mission and eight "strategic aims" in which he "tried to get everyone in the University to come to some agreement about what it was that we held in common, what our values were, what our philosophy was, to try and get something that everybody signed up to" (see appendix 7).

He is the first to admit that being able to articulate a Strategic Plan does not mean you have a strategy, but feels that the process of putting one together makes those involved more aware and more clear about "working to a common script". He also noted that the process brings together people who probably do not meet normally, and which highlighted how little individuals know about other parts of the University.

According to Peters the production of this plan has encouraged other parts of the University to put together local Strategic Plans that fit within the University's overarching Strategic Plan. He also facilitated the production of a Development Plan in which the University's "Senior Team" and budget holders contributed their views about the key issues, themes for change within the University, and priorities for the next five years.

6.4.3 Defining the OBS strategy

Asch describes the OBS strategy as "positioning", achieving a position that reflects "quality in both teaching and research". Others describe the OBS strategy as "consolidation": stopping Thomson's expansionist scramble and "taking time out" to put in place organisation systems and decision making processes; of replacing chaotic growth with ordered development. Yet others see the OBS strategy as expanding across Europe. They see a strategy of ordered expansion across the whole of Europe, involving a carefully considered plan for each country. Whether consolidation or an ordered expansion into Europe, the OBS did start to rethink its approach to continental Europe, especially where low student numbers did not appear to justify the high cost of support, such as Greece and Italy. In re-evaluating its position vis-à-vis some of these markets the OBS leadership began to appreciate that

many of the assumptions that underpin distance learning in the UK are not necessarily appropriate in other European countries. The OBS would have to tailor its approach for each national market.

Some staff within and outwith the OBS see the strategy debate swinging between two poles. Thomson's rein represented one pole, defined in terms of 'the customer is always right'. Thus strategy was about giving the customer what they want. The other pole, perhaps represented by the OU undergraduate programme, takes the view that people don't know what they want or need, and that it is the role of the OU and the OBS to teach them. Salaman, a central academic sees Asch's rein as attempting to strike a balance between the two; between developing courses that managers want, and at the same time guiding the development of those managers.

Yet other staff see the OBS developing in an ad hoc way. Those holding this view believe that strategy should not only be about infrastructure issues, or market development plans within Europe. Strategy should also include critical debates on course profile and content. One element of Asch's election manifesto was to remove unprofitable courses. Many academic teams were asked, and agreed to, select and drop those courses from their portfolio that seemed uneconomic. Salaman recalls that many people were shouting for the elimination of courses with small numbers. By mid 1994, some twelve months later, no courses had been cut. According to Salaman those demanding the elimination of courses were making the questionable assumption that small courses were less profitable than large ones. It was quite possible in his view that large courses could more easily find savings. This example highlights the OBS operating on a 'recipe' that prescribes the need for large volumes to justify courses.

Henderson, ex-Chair of the OU Institute of Educational Technology (IET), thinks that "happenstance and personal interest" better characterises what is really going on in OBS strategy.[3] Indeed he believes that OBS is similar to the other Faculties in having

[3] The Institute of Educational Technology (IET) is a unit within the Open University that supports the Faculties. Its mission is "to improve the quality of student learning in the University" (Tim O'Shea, Chair of IET).

> no strategy at all in the sense that you would recognise a strategy from a commercial organisation say. I mean we've got a mission statement but I don't think anybody really could quote it to you, or even the essence of it to you, other than we're supposed to be the best in the business *(Henderson)*.

Henderson is not suggesting that this situation is a failing of management, rather it reflects how academics are "opportunistic". Henderson perceives a struggle between "wayward academics" and those managers who want to apply order to the range and relationship between management courses. Although Thomson managed to oversee some coherence to the MBA and Certificate programmes, he never managed it with the Diploma in Management, which many are still struggling to bring to order.

Strategy is about academics "falling into" a particular topic through a chance meeting, as describes Henderson's own entry to management development in the Health Service.

> I didn't plan, and the School didn't plan on my behalf to get involved with the Health Service. I personally fell into it by accident and therefore the School got connected to it almost for better or worse *(Henderson)*.

In addition to being opportunistic academics are "obsessive". Henderson believes that academics do not give up commitments even when it is clear to everyone else that the time to move on is well past, either because the market opportunity has evaporated or was never there. He recalls that during the late 1980s, shortly after OBS won some funding to write a course on retail management, the British economy slumped and with it the market for the course that he was about to write. Despite this the course was written, printed and delivered to the warehouse. In another example,

> Asch in his very early days with the School fell into the Small Business programme. Probably Colin Grey is the only person who doesn't believe that was a disaster, because David and I appointed him to take it on after David, because of personal contacts with Cranfield, in particular the Professor of Small Business at Cranfield, [managed to sell the programme to Cranfield] *(Henderson)*.

The "obsessiveness" or strong commitment to a particular topic often helps to create a desirable expertise that, for example, the Health Service leadership want to tap into through some collaborative relationship. On the other hand, obsessiveness can also cause one to

ignore the growing signs that continued investment of time and effort in, say retail management training, is not going to be recovered because "there is no money around".

The term 'strategy' is commonly used as part of the day to day vocabulary of work. In such discourse its content is often assumed yet staff find difficulty in articulating that content. For example, Cameron, Director of Course Presentations, says that her responsibilities include "anything to do with teaching strategy", but she was unable to elaborate on what that strategy consists of "because I don't think very many courses are all that clear about it and they never talk to each other about it anyway". However, she does recognise it when she sees it:

> If for example, '883 and '885 are deciding that they don't want to have residential schools anymore, they want to use day schools, then I think it would be perfectly proper for me to be involved in that transition. Making sure that what they are proposing to replace the residentials with is something that the Regions can decently deliver, and something that will be at least as effective as the existing system *(Cameron).*

Clearly an inability to articulate strategic intent, or an absence of an explicit strategy, is no barrier to strategy practice. Cameron's example also shows that although she is responsible for Course Presentations, she shares the development and implementation of teaching strategy with course teams.

6.5 STRATEGY PROCESS

6.5.1 Informal forums and networks

The OBS Management Committee mentioned earlier (6.3) is an informal body, consisting of the Heads of the Academic Board, Business Development Board, Finance, Staffing & Resources Board, and Presentation Board. The Management Committee has no decision making function. Its members meet fortnightly and is a forum for airing ideas and discussion:

> for example, we're thinking at the moment of restructuring the MBA programme, not in terms of whether we move away from say half credits but whether we should have more elements of the MBA as compulsory. Now, that's being discussed in a number of other forums, in MBA committee, in School Board, ...

> School Board is a body you see that represents all parts of the school and in our sort of business, because after all we are a business, its important that we carry the bodies with us. *(Asch).*

Many questioned the role and need for a Management Committee, remembering the previous "Dean's Team" under Thomson. While the informality of the Dean's Team meant that decisions of any magnitude or significance could be taken quickly and 'on the hoof', the downside was that communication with the Dean's Team was sporadic and its membership was unclear, with consequent feelings of insecurity and frustration among those not in the Deans "kitchen cabinet". Such a loose arrangement made it difficult for many to contribute to decision making. It was in response to this situation that various formal decision making committees were put in place, to reduce any abuse of power by any Dean. With the election of Asch and the disbanding of the Dean's Team, the perceived need for formal control mechanisms around the Dean seemed less acute, nevertheless the notion of an informal committee did bring back bad memories.

While the Management Committee's role appears to be clear, that it is a forum for discussion and not decision, its potential for influence is significant yet poorly understood, as Asch freely admits. He has come to see its importance as a communicating medium to the rest of the OBS:

> I believe in getting the information out because we then get very good feedback in. I'm not saying that we got it right, indeed we still have communication problems, evidenced by the confusion of the role of the management committee. I have to say I'm not always clear what the role of the management committee is myself. I see it in very broad terms as a key communication device *(Asch).*

Even the notion of a "communication device" seems to carry ambiguity, as not all members of the committee interpret the communicating opportunity in the same way, often resulting in patchy feedback:

> the second day we then held a session on competences with the differing staff groups within the school, and what became clear then was that the communication process from the Management Committee to all the constituent elements of the Management Committee if you like, so the Centres, the Course Managers, the Training Advisors, and so on and so forth, had not been consistent.

> We found some groups had spent quite a bit of time working on competences and key result areas and so on, while other groups this was the first time they'd discussed .... So that actually made it very clear that these processes were not working as I'd imagined. Now, part of that is down to me, I think because of the woolliness with which I was approaching the Management Committee *(Asch)*.

The role of Management Committee seems to be evolving, through use and feedback. Its role was slowly becoming more clear in the minds of staff both within and outwith the committee; a role that was being shaped through action and interaction. Asch sees it not so much as a "talking shop" anymore, but more as an advisory group, as a facilitator. Having reflected on the evolving process of Management Committee Asch thinks that describing it as an advising body on decision making processes also reflects his personal style of leadership. Captured in the following quotation is a glimpse of how this advisory body helps shape strategy:

> what we are trying to do now, for example, is to say OK, (Management Committee doesn't necessarily make decisions per se, I mean it will do on occasion because the people who are there chair Boards, School Boards consult with Management Committee, for example.) 'OK this is what we're going to do' having had that consultation. Now, the point is that we then target someone. So, for example, if we are looking at say restructuring the MBA, well obviously that's the MBA Director, who would need to address that.
>
> So what Management Committee often does is, say, advise on a process. Now, that's a clarification of what we've done before, and now I'm trying as chairman of that Management Committee to say that this is actually very important, please make sure that the Centres, the Course Managers know about it. So that communication starts to work as a methodology for getting stuff, for example, out to the Centres, and so at our last meeting a Centre was feeding back that it wasn't entirely happy with some aspects of our current recruitment process, induction into the school for instance *(Asch)*.

Most interviewees agree that although decision making in the OU is formalised through committees, in order to get proposals through committees it is necessary to work around them, getting support from key players at each stage. Also "mavericks", according to Peters Pro Vice Chancellor for Strategic Planning, recognise that "it is easier to apologise afterwards than to get permission before hand". Another tried and tested approach is for the project champion to bypass most of the formal process and jump in at the last stage by lobbying, say, the Vice Chancellor to put some proposal forward. Peters takes some comfort in noting that "system manipulators" don't always get their way, and are likely to be slowed down by legal or financial considerations.

6.5.2 Formal forums

Formal strategy formulation in the Open University dates back only about three years from around 1991, when the Open University created the post of Pro Vice Chancellor for Strategic Planning. Peters sees the Strategic Planning process evolving; integrating and locating a five year Development Plan within a 10 year Strategic Plan at the next opportunity; and adding ways of measuring performance of achieving the Strategic Plan. Peters sees his job as two fold, one looking outward the other looking inward. Looking outward, he liaises with statutory funding bodies: National UK Funding Councils and central government departments, European Union Commission and national European funding councils.

Looking inward and like Asch, Peters also sees his role as a facilitator, working with individuals and groups within the University to encourage people and to further develop their thinking about what the University's future may be like. For example he initiated a range of workshops called New Directions Workshops, where he takes a cross section of about 30 staff from the University and tries to get them to

> do some visioning about what the University will be like in 10 years time, and then to map that back to what we need to be doing in the shorter term in order to move in that direction *(Peters)*.

For Peters these workshops hopefully achieve two aims. One is that a wide range of staff get to contribute to the debate about the University's future, and the other is that participants go back into their everyday work environment with a more clear idea about the "University's agenda", and to be able to influence at a "grass roots" level what actually changes.

In parallel with this but not driven by any OU strategic planning cycles, formal strategy formulation in the Open Business School takes place during annual 'away days' and follow up meetings which consolidate and generate actions. During the 1994 'away days' strategy meeting about twenty four OBS academics, managers, sales people, and administrators converged on the GEC Management Centre in Rugby to pour over strategic issues. During the following two days the group divided, came together, and divided again, into different discussion groups, covering for example strengths and weaknesses, threats and opportunities,

sources of competitive advantage. A large part of the time was taken up discussing and evaluating possible scenarios of the future. A lot of flip chart paper, tea and coffee was consumed during these days, culminating in a few issues for particular individuals to go away and investigate further. The articulation of these activities did eventually lead to a School Plan, covering OBS mission, presentation implementation plans, marketing strategies, and course production plans. Significantly, there seemed to be a general feeling among the participants that the coming together to explore and share ideas in this fashion was where the value of formal strategy formulation lay, rather than the production of a plan.

School Board meets about three times a year, and is yet another forum where individuals or groups from anywhere in the OU may raise issues they consider to be significant either for a Faculty or for the University. The separate Boards put forward recommendations from their informal and formal sub-committees. Perhaps more importantly, School Board represents the breadth of the University's interests, rather than more narrow sectional interests, and is the final arbiter. From Asch's experience, attendancies of 80 plus is normal, although the vast majority tend to listen and say nothing. If all staff did turn up there would be no room for them.[4]

There is an obvious question about the effectiveness of such a large decision making body. The general response from staff is that having the forum and opportunity to state one's case is fundamental to the OU way of life. Asch and others believe that even if OBS is not on the agenda, a representative from the Business School must be seen to be there. Sometimes there are initiatives being considered by a group or Faculty that the whole OU body needs to be aware of. The occasion of the OBS's involvement with the RAF was an issue that the whole OU body needed to be made aware of:

> so people would ask questions like 'do we want to be involved with the Defence establishment?', for example. Because if we win the RAF project or tender, then it does open the door to other work of a similar nature for management training, with say the Navy or the Army, or other parts of that establishment. And that does raise interesting philosophical ethical questions about whether or not the

[4] The Open University has about 3500 full time staff, and 7500 part time tutors.

> School wants to do that, and of course whether or not the University wants to do it as well!
>
> Even if we said we did, the University might say ... I don't know, but the University might say that maybe that's something that we don't really want to do. So in terms of a decision as to whether or not to do the RAF, we not only had to share what we knew with the school, but we also had to play it to the wider University, to ensure that the Vice Chancellor, the University Secretary, other Faculties, were aware of what was going on. Just in very broad terms for them obviously *(Asch)*.

Committees, as already noted, are used extensively to air, discuss, and decide on a wide range of issues. This decision making process is public, consensual, and democratic. While committees have veto over most decisions, in practice they lack detailed knowledge of individual issues and this is reflected in questions being superficial or significant issues not being raised at all. For example, at one OBS School Board meeting, lasting about two and a half hours, much time was taken up discussing credit transfer proposals, and projected student numbers. Little or no time was taken up discussing broad strategic issues, like the implications for the OBS of the developments taking place within the Open University's 'resource flow model' debate, discussed below.

6.5.3 Inter group relations

Peters, Pro Vice Chancellor for OU Strategy, regards the OBS as "a force for change" and believes that the rest of the OU will benefit "as long as the OBS can be kept within the family". Some of the tensions between the OBS and the rest of the University are being brought to the surface through the University's attempt to develop resource flow models; one for teaching and one for research.

The design of resource flow models is at the centre of an internal and ongoing discourse within the OU family about what accounting models best reflect income generation and expenses among the University's Faculties. More fundamentally the debate is about what internal behaviour the OU Senate would like to see being fostered, for example in attitudes to change. There are various external forces driving the need for change, but also making any new arrangements full of potential conflict. Externally, the government no longer funds the

Open University directly. The OU now finds itself in competition with all the other universities for government funding. The new Higher Education Funding Council (HEFC) gives financial incentives to higher education bodies like OBS to take more students. This represents income to the OBS which it wants to retain control of. Furthermore, the HEFC is also auditing the quality of teaching of higher education establishments, and their assessment will have an impact on funding levels for individual universities. HEFC will be assessing the quality of OBS research provision in 1996, and a rating of at least 3 is required to attract funds. Success in raising the OBS research rating also determines its attractiveness to other academics, and additional sources of funds, for example from professional bodies.

O'Shea, a senior academic within the Institute of Educational Technology (IET) and member of the OU Strategic Planning and Resources Committee, readily acknowledges that deciding on appropriate resource flow models unavoidably draws in 'facts' and arguments to which individual groups attach differing values. As O'Shea says "the whole area of resource flow modelling is riven with tensions, ... and there are a lot of open questions". For example, how should the OU fund the setting up of a new Faculty? Should there be a tax on all income generating parts of the OU to pay for new directions, say modern languages? How much financial slack should each Faculty be allowed so that they can experiment?

The Open University wants OBS to make a "full contribution" to the cost of corporate facilities, such as the library, examination processing, summer school administration, marketing support, and educational technology support. Apart from the support of a well established administrative bureaucracy, there is also the question of assessing what economic benefit OBS derives from the reputation of the Open University. The OBS for its part argues that it is the only Faculty that is self financing, and which makes a positive financial contribution to the corporate whole. While OBS controls its own direct costs, such as tutor payments, it has little control over indirect costs. These indirect corporate expenses are a source of tension because OBS managers believe that the OU accounting system is antiquated and distorts "real costs", resulting in unacceptably high overhead claims against OBS. Although OBS controls direct costs, even these can be a source of tension. For

example, in making ad hoc payments to tutors, OBS is sensitive to complaints from other Faculties that it is setting a dangerous precedent that the rest of the OU cannot follow.

This tension between OBS and the parent and other Faculties, also reflects the very different markets for management development and undergraduate education. In the former, courses sell for three times more than any undergraduate course. Relatedly, most tutors and administrators have experienced complaining managers who expect a feel of 4-star quality at study centres and summer schools; an expectation fuelled by their experience on short executive courses and other business meetings, typically held in 4-star hotels or purpose built management development centres.

While the positioning of the OBS product is competitive externally, its "market driven" approach sits uncomfortably among the other Faculties' approach. Where OBS is run as a business, the other Faculties take a more altruistic and missionary view, attaching much more importance to providing high quality education at minimum cost to all comers. Not surprisingly this translates into day to day tensions between OBS staff and regional staff, OU support departments at Walton Hall like BDMO (Business Development and Marketing), and student administration services.

The tension between OBS and regional staff manifests itself in local arguments, typically revolving around questions about resources, like "who is going to pay for this temp's time?". Many regional staff also feel that OBS has no strategy, does not know what is going on in their region, and that these tensions are clear evidence of those failings. Until recently BDMO was a source of tension because, according to OBS staff, it was not entirely accountable to OBS, but this tension seems to have diminished since OBS created its own sales and marketing function. BDMO staff for their part, attribute any misunderstanding to OBS failing to have a clear understanding of what they wanted BDMO to do for them. BDMO say that this weakness was evident when they were discussing projects like market research for OBS.

The more diffuse OU administrative systems and procedures and OBS also bump into each other in various ways. A common source of tension is in the area of general student administration. In this respect Asch sees the OU as failing to take account of the unique needs of OBS:

> where that buts up against us with some difficulty is that things are generally undergraduate driven in the University, and so we have to continually remind them that 'by the way', (because with Health and Social Work they have a student profile similar to ours, and a course profile that in its own way is similar), 'something like a third of the Open University students are not undergraduate students in the conventional undergraduate way' *(Asch).*

There are also tensions born of the autonomy that Faculties enjoy within the OU family. OBS and the Technology Faculty are competitors; one Faculty having a bias toward technology and the other toward general management. A certain amount of sabre rattling took place when the Technology faculty introduced an 'MBA Technology' because OBS saw this as a direct threat to their own MBA. While the Technology Faculty's MBA proposal followed the correct procedures and was passed by the University Senate, Asch suggests that they got away with this because Thomson, who was Dean at the time, did not know how to operate the University's informal network, and was also more concerned with a different, external issue, that of expanding into Europe. In Asch's view if that 'MBA Technology' threat were to arise now:

> the Dean of Technology would ring me up and say 'Dave, we're thinking about this, can we talk about it?', and we'd talk about it, and I'd try and convince him informally that its actually a bad idea. If he decided to pursue it, then you move into something of a quasi-political mode, of flagging concerns in other parts of the University, trying to build support against it, and one would keep the dialogue open with Technology, because if you like, we win the debate in as much as the MBA Technology doesn't happen that's OK, but the fact is Technology has more votes that OBS; its a bigger faculty. One would have to keep the doors open if we lost that. You want to create a win-win in the best way that you can, because I don't want to lose *(Asch).*

Neither OBS nor the Technology Faculty want to see any overarching OU grand plan resolving or preventing such clashes. They see the development of their respective groups as being guided by a shared philosophy and values. How they interpret those values is a matter for individual Faculties more than the OU Senate. Nevertheless, in general, OBS staff often

see the OU body as a brake on their own creative output, while the more established OU groups outside OBS, often feel that OBS is getting away with murder.

6.5.4 Intra group relations

While OBS relations with other groups produce most tension, there are also a few internal difficulties. There is a tension between course production and course presentation. As noted earlier, production refers to the writing and printing of course material, and presentation is its delivery through regionally organised tutoring. Course production and presentation are different management structures within OBS. One area of tension concerns tutor quality, a critical area for both the OBS and the OU. OBS course teams are responsible for monitoring tutor performance, but feel they have little influence in translating that monitoring into taking action to either reward or remove tutors; they feel blocked by Course Presentation leadership and its Regional Managers.

There is also some tension between regionally based OBS staff and the OBS centre. All committee meetings are held at the centre and regional staff are entitled to attend. However the geographical spread of regions tend to produce regular attendancies from staff near to Walton Hall in Milton Keynes, such as from Oxford or Birmingham, while staff from Scotland or south west England rarely attend. Some of these more remote staff feel disenfranchised because as one MEC remarked "a lot of opportunities come up but you have to be walking past the door of the Dean at the time". This is not a reference to Asch as Dean, nor to Thomson's informal "tap on the shoulder" approach to making appointments. It is a reference to the feeling that distance from the centre has a real impact on one's opportunities, and scope for contributing to decision making within OBS.

There is also some tension between course teams and course management. While as Cameron (Director of Presentation) says "course teams are king in the OU", Course Chairs do not have financial control over course development or presentation. They are responsible for its academic content, while its administration, including financing, is the responsibility of

Course Managers and OU administrators. This tension can show up in unexpected places, for example over travel expenses. There is also tension due to academics' obligations to write for course teams, and the exercising of their right to pursue individual research interests, including taking study leave.

The existence of so many inter- and intra-group tensions does not suggest the absence of some form of government, or that anarchy is about to break out. Rather these tensions are a way of life that supports diversity of perspectives, roles, research interests, teaching, and various other activities. The OU philosophy of open access and equal opportunities is felt to be a guide to internal behaviour as well as a metric for dealing with the educational needs of the world. At times there is friction when the OBS wants to do something that is vetoed by the OU. At other times it is useful for the OBS to be doing things differently because according to Peters, "they're paving the way and that can create opportunities for other people". Interestingly Peters feels more concern about the rest of the OU family not being sufficiently proactive in taking initiatives, than about the OBS "wanting to plough its own furrow".

6.6 INNOVATION

6.6.1 Models of success: looking back and looking forward

According to Masterton, Secretary to the OBS, most of the Open University's innovations have come from the Centre for Continuing Education (CCE). The CCE was a way of dealing with initiatives that did not fit into the university's undergraduate programme. It was here that a number of now well established Schools first saw the light of day: 'in service education for teachers' went toward the School of Education, 'health and social welfare', led to the School of Health, Social welfare and Community Education', 'science and technology', led to Masters degrees, and 'management education', developed into the Open Business School.

In Masterton's view a number of external and internal environmental factors fostered these success stories. The first was "top down sponsorship" of innovation, because the Open

University was put in the hands of risk takers, especially Walter Perry, the first Vice Chancellor (now Lord Perry). During the early years of the OU, projects that were clearly outwith the traditional understanding of 'undergraduate', and labelled as 'pilot' or 'experimental' were either encouraged or met with little internal resistance.[5] Most initiatives were based on market research according to Masterton, although some interpreted the market research to justify the development of a course. For example, the two Masters degrees in computing and manufacturing management are only now beginning to generate viable student numbers. In retrospect he thinks that these two courses came five years too early, and that the evidence in the mid 1980s of a need for these courses was flimsy. In Masterton's view these courses were not developed because of any market potential, but came about through the convergence of two other factors. First, the SERC (Science and Engineering Research Council) had funds available and a government remit to raise manufacturing and computing competences in industry. Second, a number of OU academics wanted to do something in this area.

While the two courses in computing and manufacturing seemed to come into being with no internal resistance and little market support, Masterton presents the emergence of the OBS as a struggle against vested interests. The market research evidence of a need for management education was clear, however academics from the undergraduate world were against the initiative on two counts. They questioned the legitimacy of 'management' as a discipline in the same way that for example economics is. They also objected to seeing resources being channelled into what many regarded as the low priority area of CCE. Perhaps some of the resistance was also due to 'management' not being perceived as a sufficiently different area to the undergraduate world, and therefore funds were perceived as being misused. It was within this climate of resistance that the first OBS course, The Effective Manager emerged. Supported by a small internal 'loan' that had to be repaid within three years, and a large

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[5] An example of the extent of this experimentation is in the development of two short courses: The Pre-School Child and The First Years of Life. A small group of academics, and experts in the production of magazine style publications developed these courses with the aim of presenting complex ideas for a reading age of about 12 years. The idea was to produce something useful for the socially disadvantaged, such as low income and one parent families. The approach broke with the academic tradition of presenting complex ideas as complex; and in the words of Masterton exploited the "Sun headlines" approach to saying something meaningful. These courses continue to sell well nearly ten years later.

external grant, the course was launched. It proved to be "hugely successful" according to Masterton, "repaying all of its costs within the first year". Other courses followed, as did a lot of positive cash flow that gave the barely emerging OBS substantial political independence within the OU family.

As the OBS and the other Schools grew so the CCE seemed to fade away. At the time of this research the CCE no longer existed. Some suggest that the diversity of Schools within the OU is now a better source of innovation, and makes the need for CCE redundant. However, others still talk about a need for something like CCE to foster innovation anew and new ways of thinking. According to O'Shea of IET, the OU is very bad at learning from its own history. Beyond personal experiences of working in CCE, no systematic observations and documented analyses were ever made to explain why or how successes and failures came about. O'Shea's observation seems to undermine any notion that the knowledge bases of organisations automatically grow in some kind of cumulative and rationalistic way.

While CCE is lost in history, the OU remains self-conscious about its ability to innovate, for example its ability to continually find more effective ways of improving the learning experience of students. The OU Senate wants to develop resource flow models that facilitate change, but one of the biggest constraints according to O'Shea is the OU's success; it has become the "IBM of higher education". In thinking about what kind of future is desirable, the OU Senate is exploring possible scenarios through computer modelling, based on parameters from the Planning and Budgeting committee and the OU strategic aims as documented for example under Peters' Plans for Change.

A concern for improving students' learning experiences means being able to assess quality, particularly through student feedback. While the OU was aware of the general applause for its distance learning philosophy, it did not have any specific mechanisms for assessing student feedback until the late 1980s. Cowan, Scottish Regional Director brought his expertise in the assessment of quality to the University. As Chair of the University's Working Group on Quality Tuition, Cowan is keen to see quality maintained or improved, especially in innovative curricula:

> to me the systematic design and redesign of especially innovative curricula is about identifying the nature of the learning, and building on the nature of the learning and the learning experience into the next iteration. So I would go for a formative identification of quality during the iterative process of refinement and improvement even before you come into the summative one *(Cowan)*.

The issue of quality continues to gather pace, and is making an explicit appearance in many areas, including: student feedback on tutor quality, residential school learning experience, the quality of the printed material, and end of course evaluations.

6.6.2 Curiosity, creativity, and recipes

Much of the OU and OBS success is attributed by Henderson, a Deputy Director of OBS, to the teaching style of the written course material. Apart from a number of voluntary workshops offered by IET a few years ago, on how to write distance learning material, new authors do not go through any formal induction writing process. Even though individual authors, whether new or not, do have particular approaches when writing course material, there remains an OU flavour to all written material, regardless of who is writing. For example, OU material is well know for its 'activities' (practical student centred tasks), and secondary reading and audio visual media used to break up and supplement the main text. Henderson believes that long standing OU authors are "imbued with the processes" of writing distance learning material; that "the way we do things around here" has influenced all authors from the beginning of the OBS, and continues to do so. In the early days, he, Lund, Henry, and other IET academics would have been part of the few course teams around at that time. New authors learn the OU way through "osmotic" processes; by being in course teams and trying to make sense of the OU writing style. Henderson qualifies this by saying that the process is not some sort of "Adam and Eve process at work, where everything can be tracked back to one source". The influences are varied and many, yet there is continuity in all OU material.

While the OU distance learning style is distinctive, Henderson believes that it is not static, but "provides a cultural base from which to develop, be creative, and have new ideas about

how to do things". "Academic curiosity and creativity" contribute to the way that particular courses and market opportunities unfold. For example,

> a typical academic who sees our texts are laced with activities of various kinds is not content to sit down and write a similar text similarly laced with activities. The curiosity element tends to come in to say to other people (in conversation, over a cup of coffee, or in the bar, or in the course team for that matter) 'why are we doing this, what is the rationale, how many [activities] do we put in, why do we put them in, are these the best kinds?' The curiosity of academics helps them to explore the rationale behind things as well as just the slavish doing of them.
>
> The creativity of many academics will also lead them out of those conversations into a situation where they then say 'but I can see a better way of doing this. I understand why we're doing it but I don't think this is very good, so we ought to do things slightly differently. When you compare different courses, or even different authors who are writing across different courses, you can see considerable differences in the learning technologies they use, as well as in things like their writing style *(Henderson)*.

6.6.3 Constraints on creativity

As noted earlier many staff identify the OU and the OBS success as a block to developing novel and useful ways of improving students' learning experiences. O'Shea of IET says that he can think "of hundreds of ways to improve learning experiences", some incremental and others radical. One of the taken for granted blocks to change he believes is that the OU's capacity to offer full time education is not even a considered option. O'Shea says that there is nothing in the OU Charter to prevent it setting up, say, a smaller full time facility.

A number of other concepts have become reified over the years of successful growth. Henderson of OBS for example believes that fifteen years ago the Course Team was a very useful innovation, a melting pot; blending subject knowledge with learning technologies; all members meeting frequently, everybody reading and commenting on each other's drafts. Today there are so many courses to be maintained and created that the whole team rarely meet, and less interaction takes place. Indeed the Course Team according to Henderson is now more a constraint than a source of creativity.

Other ingrained practices that some now see as constraints, yet whose continual refinement have contributed to the University's success include: student enrolment practices, the concept

of the Tutor Marked Assignment, the mix of delivery media (mostly print, and a little audio visual), and the linear course production and publishing process. The University's membership are conscious of these issues and many of them do worry about the constraining influences and continuance of these practices, such as having to commit to minimum print runs for new courses measured in thousands of copies. Critically and usefully according to O'Shea, the University culture is one that facilitates and learns through experimentation by individuals and groups.

Peters sees great difficulty in trying to bring ideas into the organisation from beyond the OU boundaries. In a sense the original concept of delivering distance education back in 1970 was too successful. The OU has flourished, the fundamental methods of course production and delivery have changed little, and people believe that the OU way is the best, that there is little that other organisations can teach the OU.

Peters notes that it is very difficult to get anyone to investigate whether there are any lessons to be learnt from, for example, how First Direct manages its remote banking business, or to pay serious attention to the London Business School approach to speeding up the tutor-student assessment and feedback cycle. There is an equivalent to the OU in every European country and 30 other such institutions outside Europe. Some of these institutions have used OU material, but the OU has never taken a course from other distance learning institutions and adapted it.

6.6.4 Managing the inertia of success

In trying to generate new ways of thinking, Peters sees his mission as,

> releasing innovation which is pent up within the organisation, the individuals who can see how we could be operating using a different model, who could see ways in which we could act differently, and be more responsive, or achieve some aims more readily *(Peters).*

Some of his Strategic Development activities have been geared toward achieving the liberation of such ideas. Peters' approach to breaking down existing "recipes" is to pick on

people "who are ripe for change" in the sense that either they are experiencing pressure of some kind and therefore must change, and also picking on those who have "a bit of flexibility that comes from success". He would then suggest alternative approaches to them. This approach is not having much success and therefore he feels that his next step is to add "some real incentives to go to some other models". Even taking this additional step into account, he is unhappy with the whole approach because it relies on "a top down view of what these other models are, rather than bottom up, giving them a chance to experiment".

The fact that many people particularly those in senior positions within the OU have been around for 20 years plus, is as an inhibitor to innovation, according to Peters. He tries to deal with this through his Strategic Development activities. He has also set aside £1m per year as a Strategic Investment Fund and people are encouraged to apply for money to fund projects that "might change the way in which we do things or might create a new opportunity".

Other initiatives that are potential sources of innovation include a comprehensive overhaul of the student record system, estimated to cost £10m and likely to take five years to complete. The scheme involves a whole spectrum of activities: defining long term needs, current short comings, looking at how other organisations manage. Neither Asch of the OBS nor Hughes of the Technology Faculty seem to have much patience for such long term grand schemes. They want changes now, and in any case everything will probably have changed again within the next five years.

While Peters is working for change through 'top down' initiatives and incentives, individual Faculties are also experimenting. Hughes of the Technology Faculty for example has decided that he cannot wait any longer for the slow OU machinery to come up with a comprehensive and faster course production system. Technology courses will now be increasingly produced in loose leaf binders, with frequent updates. These will be printed or photo copied using equipment designed for producing high quality low volume print. Hughes knows that the OU corporate leaders are aware of his initiative. Indeed he hinted as much to them. Rather than seeing this as deviant behaviour that must be stopped, those interested are watching and using the event as a learning opportunity.

6.6.5 Pedagogy and technology

Historically the practice of teaching for the OU in common with most educational institutions has been based on the delivery of 'facts' to students. Peters feels that the OU is aiming to move more and more to a position of giving students the skills that will enable them to "learn to learn", and providing opportunities for them to learn, rather than the delivery of facts to be learnt. He sees one way into this new way of thinking as being through the introduction of new technologies like CD ROMs and networks. These technologies require more emphasis on showing students how to effectively access the knowledge that they carry. Developing people's skills on 'how to learn' will probably also develop their ability to draw on the tacit knowledge and skills of others.

Others, such as O'Shea of IET are more up beat about the University's performance on developing a 'learning to learn' teaching philosophy. As examples O'Shea cites the gradual increase of project and portfolio based assessment as apposed to examinations. He admits that there is scope for further development here, for example developing group assessment models.

Open University staff are very concerned about the rapid changes in the development of technologies that seem relevant to educational technology and distance learning. This concern has been expressed as numerous committees looking at various dimensions of information and communication technologies, and from different perspectives: CIRCE, the Media Development Committee, the Academic Computing Committee, the Delivery Mechanisms Subgroup, the Information Systems and Information Technology Strategy Committee (ISIT). ISIT is responsible for co-ordinating various investigative projects, including one named the Electronic Strand. While most OBS staff regard themselves as the unchallenged best in the distance learning game, many think that the OBS and the OU must grasp without further delay the emerging opportunities "in learning media, delivery systems and communication networks" *(A Preliminary Report from the Advisory Group on a strategy for the Electronic Strand of the University. delivered to the School Board March 15, 1994).*

The myriad of committees and working groups reflects the OU desire for a comprehensive understanding of all options. However, this comes at a price. These working groups, some of which have overlapping interests, are all producing vast amounts of data and information. In addition to a potential information overload many feel that a significant number of people do not know what committees exist, nor what they are all doing, nor how they relate to each other.

The Electronic Strand's preliminary report of March 15, 1994, recognises the need for its work and for the output of the various other committees to be co-ordinated and linked to the University Communications Strategy, but it is unclear how this can be done given the problems of: information overload and poor internal communication; the rich variety of views about how the OBS and the OU should position itself in the coming decade; mixed feelings about whether technology is driving or being driven by the school; and the inertia of multiple committees joined to a large administrative bureaucracy.

The OU has not been afraid to take time to gather, evaluate, and deliberate on its response to the information and communications technological developments. When the response did come, perhaps two years after the first committees went into action, it was substantial and comprehensive (see appendix 8). "Open Business" the OBS MBA Alumni newspaper reported that

> The INSTILL Project, standing for Integrating New Systems and Technologies into Lifelong Learning, was proposed by Sir John Daniel, Vice Chancellor of the OU, in January 1995. The project involves a commitment of £10M of University funds over 3-5 years, to ensure the University takes rapid advantage of new communications media and maintains its leadership in the application of educational technology *(Open Business, Issue 4, Autumn/Winter 1995).*

6.7 CONCLUSIONS

This account has examined how staff in OBS and the OU organise themselves, their understanding of OBS strategy and the role of innovation therein. A few themes seem to stand out. In one sense strategy seems to be synoptic (see 2.3.2), and involving a striving for consent in all quarters of the organisation in advance of action. The OU has a function

dedicated to strategic planning, including the co-ordination of five and ten year plans; numerous committees spent more than one year analysing the strengths and weaknesses of a range technologies that might help the OU maintain its lead in distance education; Asch's annual 'away days' play an important part in preparing the OBS Business Plan. There is a sense that all strategic options are fully considered before committing to a particular direction.

At the same time the way of life in the OU and the OBS seems to foster diversity. Individuals are encouraged to pursue their research interests, course variety continues to expand, academics continually experiment with new ways of producing and teaching courses, sometimes like Henderson developing their own niche in the management education market. Individuals jealously guard their individual freedom and their collective right to influence OBS strategy, and are proud of their open access and equal opportunity philosophy that underpins the OU relationship with the external environment. In this climate innovation is both carefully planned and open to individual initiative. Major projects like INSTILL provide a framework for innovation, but many initiatives will continue to emerge regardless of overarching frameworks.

To some extent OBS strategy is both determinate and managed chaos (see 2.3), but why is it so? Staff are aware of the many tensions that constitute life in OBS, particularly as and when they feel that their freedom, or their ability to function effectively, is being constrained. For them such considerations are irritations; an inherent part of the best of all possible worlds. Chapters 7 to 10 explores a range of factors that shape the practice of strategy, helping to explain why strategy practice tends toward a process that may be determinate, managed chaos, or both. Perhaps more fundamentally the following analyses shows that more than being a detached instrument in the hands of practitioners, the practice of strategy is shaped by a 'taken for granted' world, a social reality.

PART III

Analysis and Conclusions

7

Empirical and theoretical bases of social reality

7.1 INTRODUCTION

The earlier literature review presented three conceptions of strategy: determinate, managed chaos, and socially constructed (ch. 2). The determinate conception presents strategy as calculative and linear, regardless of how comprehensive or incremental it may be. In this process practitioners are continually seeking to control their competitive environment. In the managed chaos conception, strategy is broadly reactive with practitioners adapting to their environment as best they can. The managed chaos metaphor differs from the determinate conception by highlighting the constraints on the collective rationality of practitioners: rational and purposive strategy is constrained by individual cognitive limits to absorb information, and there are limits to the collective's ability to organise and communicate knowledge and information. The social construction metaphor differs from the other two by acknowledging that practitioners act on their interpretation of their competitive environment. In this conception environmental signals are not read off as self evident but are mediated by the organisation's paradigm. The notion of an organisational paradigm is seen as enriching our understanding of the constrained rationality of strategy, suggesting that managers perceive the environment in ways that approximate to the real environment. Within this perspective strategic choice is constrained by managers' socio-cognitive limits of comprehending environmental reality; and contested because of differentiated understanding of the nature of that reality, and political satisficing born of competing interests.

Three assumptions are embedded in these conceptions of strategy that remain largely unstated. First, that strategists do to varying degrees control the process and content of strategy. Like overseers, they remain detached from the process, however successful or unsuccessful they are in managing their organisation's relationship with its competitive environment. Second, that knowledge accumulation, and any inseparability of facts and

values, are due to limits of time and knowledge available to gather additional knowledge, and practitioners' capacity to separate facts from values. The third assumption is that strategy as an interpretive process can be manipulated by an organisation's leaders just as control systems and structures are open to design.

Lengthy and detailed discussions with practitioners about how they practice strategy, in parallel with continual reading and revisiting of the literature on strategy, innovation, and research epistemology has led me to a different conception of strategy. This conception is based on an understanding of the social construction of reality, which diverges markedly from that presumed in the literature review (see 2.7). While chapter 2 assumed reality to be 'out there' and culture 'in here' (within the organisation), the fieldwork evidence points to reality as constructed by practitioners' social interactions; reality is no longer 'out there' waiting to be perceived, it is at the heart of practice. Whatever is out there is put there by practitioners who at the same time perceive and negotiate about what is out there. Facts and values remain inseparable, but for different reasons now. That inseparability is due to the social construction of facts, rather than to limits of knowledge and time.

The conception presented here is not meant to overturn the determinate or managed chaos conceptions as somehow wrong. Rather the aim is to suggest that everyday strategy practice, whether determinate or managed chaos, is a process where practitioners routinely engage in seeking and applying patterns to their experiences, rather like the researcher who, in seeking to make sense of the practice of strategy, constructs a particular story from the data available. In this view strategic choice is still contested and constrained, but more than that, it is socially constructed through the differentiated understanding of, and collective commitments to, a discernible yet indeterminate reality. We might pick out particular features of this reality, but these are suggestive rather than definitive, and there are always exceptions.

While many writers (Mintzberg, 1978; Smircich and Stubbart, 1985; Child and Smith, 1990) recognise that strategy is socially constructed, they differ in the extent to which they regard the environment as material and independent, or see it as a product of human imagination, a perceptual phenomenon (Child and Smith, 1990: 315). Others recognise that people and

organisations construct their collective reality, but without framing the process of construction in terms of the practice of strategy (Berger and Luckmann, 1966; Weick, 1979). None to my knowledge have tried to describe the links between: the nature of constructed reality; how practitioners construct strategy practice; the role of capabilities; the interpretive flexibility of technology; and the possibility of plural realities. These omissions in the literature offer scope for accounts that enrich our understanding of practice and the management of innovation in the context of competitive strategy. The notion of social reality and its construction is central to this thesis and permeates the whole analysis of my empirical material. This chapter aims to prepare some of the ground for chapters 8 to 10 by introducing and exploring the nature of constructed reality. Before describing how practice is socially constructed (chapter 8) there needs to be some clarification of what social reality is, and its relationship with everyday practice; this is the task of this chapter.

The main section of this chapter is divided into five sections (7.2). In the first, social reality is defined as that which is 'taken for granted' in our everyday lives; practices that go unchallenged by those around us because they are shared and 'that is how we do things around here'. Discussions about the 'taken for granted' are really discussions about shared assumptions involving an inexhaustible range of factors: right and wrong ways of co-operating and competing; ways of dealing with uncertainty; ways of understanding our place in the world. Section two reviews empirical evidence and theoretical ideas that different communities around the world take different things for granted, and shows that the same community can change its view of the world over time. This review draws on different intellectual disciplines: studies of culture from social anthropology; ideas about culture from organisational studies; studies of paradigms and thought styles from the sociology of scientific knowledge claims; and ideas about recipes from interpretive sociology. While these studies have different intellectual emphases, they all contribute to the notion that whole communities make sense of their world in distinctive ways, through their collective 'thinking' styles; what they regard as right and wrong ways of living; what they regard as truth and falsity. The 'psychology of the individual' metaphor of 'thinking' seems

appropriate because it gives a sense that the social reality of a whole community is discernible as an entity in its own right, and is to some extent unique to that community.

While the previous two sections establish the existence of social reality, the third section argues that the social reality of a community gives meaning to the practice of strategy, reinforcing and extending everyday practice. At the same time practice reinforces and elaborates the community's social reality. Thus we cannot discuss practice without invoking social reality, and vice versa, because one embodies the other. Having said that the 'thinking' metaphor is useful, there are difficulties with it. The fourth section considers to what extent the individual is the group writ small, or the group is the individual writ large. Relatedly, the fifth section asks whether it is meaningful to conceive of an organisation that can unlearn. Before engaging in these topics a few opening remarks about the value of a socially constructed approach, and the relationship between subjective and objective reality seem appropriate.

7.1.1 The value of a social constructivist analysis

The works of Burger and Luckmann (1966) on the sociology of knowledge, Schutz (1964) on interpretive sociology, and Weick (1979) on the social psychology of organising have influenced a number of writers on strategy. Sociologically informed writers on strategy recognise that practitioners construct their social reality; however they remain a group apart from mainstream management teaching and practice. Even where social construction ideas do feature in mainstream management thinking it remains implicit, as in Mintzberg's (1978) or Pettigrew's (1977) work. By remaining implicit, practitioners are denied any understanding of the assumptions and implications of a social construction perspective.

Indeed by presenting business management as a set of rational imperatives, mainstream business teaching is itself constructing practice. For example, Knights (1992: 525) shows that Porter (1985) teaches competitive strategy by representing "the business corporation ... as a set of activities and value chains that are detached from those managers, workers, and

consumers who constitute them". Insofar as practitioners accept Porter's or anyone else's prescriptions, namely these representations of reality, they internalise these ideas, which then guide everyday practice. The socially constructed roots of these representations, their subjectivity, becomes lost, and practitioners take their understanding of reality, and their identity, from "the rational imperatives for controlling uncertainty implicit in [these representations] of competitive strategy" (Knights, 1992: 525).

The value of a social construction approach to thinking about strategy is that it makes explicit the sense that strategy making is a social rather than computational process. The approach shines a new light on the dynamics of strategy practice generally, and in particular offers a more fine grained analysis of strategy making where many fuzzy aspects human behaviour interact to shape the scope for innovation. The thesis shows the inevitability of trial and error at all levels of strategy, and that the inescapable heterogeneity of capabilities both within the firm, and between competing firms, contributes to technological change and competitive advantage. Further, these ideas suggest that a significant proportion of any agreement between claims about organisational competitive performance and strategic intent is not necessarily due to that intent.

Schon found in his analysis of how professionals decide (drawing on examples from medicine, law, engineering, education, business, and others), that practice is rooted in "technical rationality" (1983: 21). He argued for practitioners to be more reflective about their professional knowledge. The perspective offered in this analysis encourages practitioners to question and reflect on their assumptions about various features of strategy practice, for example: preferred ways of handling uncertainty and risk, and of organising work; the meaning that practitioners attach to each others' views and positions; why they see events, and situations in this way or that; the material and symbolic consequences of those interpretations; the basis of judgements about what might or might not work in a given competitive situation.

In arguing for a socially constructed conception of strategy, Smircich and Stubbart suggests that strategists "should learn to act ambivalently about what they know so that they do not

become strait-jacketed by what they know" (1985: 732). This is good advice if it is a call to be self-reflexive. However, it also opens up the danger that strategists think themselves to be outside, and as independent to, a process that exists only as long as they remain central to it. The human subjectivity that creates knowledge also makes that knowledge unstable.

7.1.2 Subjective and objective reality

Strategy is a process of social construction or 'enactment'[1], by an organisation of its environment in blind co-operation with other organisations. Social reality is constituted of the unceasing interaction between the subjective and objective: interactions between our subjective processes of giving meaning to, and drawing identity from, our everyday experiences, and an objectified world. I interpret the subjective processes of others as objectively meaningful, attaching meaning to my interpretation and acting on it whether or not such meaning was intended by the other subjects.

Smircich and Stubbart (1985) argue that practitioners should become more aware of the scope for enacting their competitive environment. However, in replacing the objective and independent world with an enacted one, Smircich and Stubbart seem also to throw out the possibility that our objectified reality shapes choice. They suggest that "there are no threats or opportunities out there in an environment, just material and symbolic records of action. But a strategist - determined to find meaning - makes relationships by bringing connections and patterns to the action" (1985: 726).

Conceiving of a socially constructed environment does change our understanding of the nature and source of threats and opportunities. However, we objectify and legitimise reality by attaching meaning and value to streams of events and situations; an objective reality that we then interpret as massively real and possibly threatening. Within the socially constructed competitive environment, a major customer demanding a price cut as a condition for continuing to be a customer, or a competitor attempting to take away a rival's key customers,

[1] 1 Weick (1979: 165) coined 'enactment', to emphasise that people actively create that which they then perceive as real.

or technological change within the industry, are all products of people interacting and communicating with each other, of human intersubjectivity, yet the objectified existence of such events also present very real threats and opportunities to a firm's future.

Berger and Luckmann (1966) in their thesis on the sociology of knowledge show that 'symbolic records of action' do become massively real, 'objectified' through for example legitimation or institutionalised commitments. The often cited statement of the purchasing executive who bought IBM equipment for his company because 'no one ever got fired for buying IBM' is an example of the force of that legitimation. Of course competitive and regulatory action can break or erode such commitments. IBM no longer has the dominant competitive position it once enjoyed, but that does not take away the force of legitimation and commitments in shaping choice. Threats and opportunities may not be "out there in the environment" but neither are customers and competitors "a projection of human imagination" as Morgan and Smircich (1980: 492) describes the extreme subjectivist approach to social science.

7.2 CONSTRUCTING SOCIAL REALITY

7.2.1 The 'taken for granted'

Social reality is that which is taken for granted, and guides everyday strategy practice. Berger and Luckmann in their analysis of social reality explain that:

> the reality of everyday life is taken for granted as reality. It does not require additional verification over and beyond its simple presence. It is simply there, as self-evident and compelling. I know that it is real. While I am capable of engaging in doubt about its reality, I am obliged to suspend such doubt as I routinely exist in everyday life. This suspension of doubt is so firm that to abandon it, as I might want to do, say, in theoretical or religious contemplation, I have to make an extreme transition *(1966: 37).*

Different terms have been used to define broadly the same concept, but in different contexts and reflecting different intellectual heritages. In Anglo-American sociological tradition "the total set of beliefs, customs or way of life of particular groups" defines 'culture' (*Dictionary of Sociology*, Penguin). Loveridge (1990: 96), in writing about 'strategies in context' and the

management of innovation, refers to 'strategic frame' as "the existence of a stable set of personally held values and orientations by which individual behaviour is structured and, therefore, predictable for others". Hedberg and Jonsson (1977: 90), in discussing the nature of strategy, describes a 'myth' as "a theory of the world ... from which an organisation derives its strategies during a certain time interval". There are many such terms, but in essence they describe the notion of culture as shared meaning and understanding.[2] Further, as Morgan (1986: 128) notes "in talking about culture we are really talking about a process of reality construction". 'Social reality' rather than 'culture' or other terms more clearly captures the sense that human actions are grounded in particular epistemologies and ontologies.

Practitioners rarely indulge in reflections or discussions about the epistemological certainty of what they know, and on those brief occasions when they do so, they see themselves as stepping out of reality. Taken for granted knowledge routinely guides assumptions and decisions even before rule making sets in. Just as macro societies like nations take a set of ideas for granted, for example, the value of institutional competition versus common ownership of resources, so too smaller societies such as organisations, have different realities. Moreover, social reality, while discernible, is also indeterminate. It is always only partially available to our apprehension, typically through symbols.[3]

As discussed earlier practitioners use symbols to make sense of, and manage, their relationships with each other and the external environment (see 2.3.4). Nevertheless writers and consultants commonly overstate the extent to which practitioners or their advisers can manipulate their social reality. Smircich and Stubbart for example, urge managers to exploit the role of dramas like

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[2] Writers use differentiating labels to stress a particular perspective, including 'culture', 'belief system', 'system of values', 'ideology', 'life-worlds', 'paradigm', 'recipe', 'cosmology', 'theories of action'. Which term is used also depends on the writers intellectual heritage. Further, while many writers refer to 'culture' in differing contexts, its meaning in that context is often not defined. Perhaps for this reason it seems to have lost its meaning through use and abuse, as a 'catch all' label.

[3] It is these symbols that consultants and practitioners try to manipulate in the hope of changing an organisation's culture: introducing mission statements, encouraging empowerment, introducing a formal grape-vine such as the top-down 'cascade' of information, business re-engineering, restructuring, etc. Checklists for the task abound: Johnson's 'cultural web' (1989), Kakabadse *et. al.'s* 'power levers' (1987), McKinsey 7-S Framework in Peters and Waterman (1982), Leavitt's 'diamond' (1978), Harrison's questionaire (1972).

> socialization and training, the Christmas party, campaigns, big meetings, etc. Strategic managers should realize that they exercise wide discretion in defining what the dramas are and when and how they will occur. Wise strategic managers take advantage of language, metaphors, and stories to convey their messages *(1985: 730, 731).*

Ascom Timeplex staff take for granted the importance of individual success through individual initiative in an internally and externally competitive and territorial environment. The Bank of Scotland staff take for granted the sense of order delivered by history and their hierarchy. When they discuss strategy in terms of 'stewardship' and 'bottom-up and top-down', it is for them a natural framework. The Open Business School staff take for granted their right of equal access to decision making of the whole Business School. These realities are reinforced by taken for granted practices. In Timeplex the relative ease with which staff are made redundant or re-employed reinforces the reality of competition at both the individual and organisation level. In the Bank the reality of order and prudence is reinforced by the emphasis put on continuous improvement in efficiency, and reflected in cautious recruitment, continuous training, and regular performance evaluation of individuals and operating divisions of the organisation.

Over time rules of behaviour become unconscious, taken for granted, and form part of the organisation's heritage. In this sense we can also say that organisations are rule governed. If the Bank were starting out today, would it develop the twelve layers of managerial responsibility that it currently carries? It seems unlikely given current social fashions. Timeplex's individualist practices are ingrained, as evidenced by the existence of its 'escalation log', a register of problem installations awaiting resolution (see 4.3.5). It is a by-product of the 'get the order and move on' approach to strategy. The possibility of life without such a mechanism does not enter the consciousness of Timeplex staff. This has always been the way to compete, and would require a different way of thinking to be otherwise. The accepted way of dealing with these consequential installation problems also reflects its practitioners' individualistic approach to business. Although the register is prioritised according to various factors, rearranging the order of dealing with problems is not unusual. The customer that shouts loudest gets priority.

As these examples show, "existing practice does guide future practice, ... without logical determination" (Bijker, 1995: 252). Bijker was writing about the social shaping of technological systems, but the point applies equally to strategy practice. Such guidance is a mixture of dealing with the exigencies of the day, and the unconscious influence of heritage. How practitioners deal with the 'day to day' is guided by their constructed social reality.

Social realities can at any time be threatened or lost, to the individual and the collective alike. In the Open Business School the taken for granted belief in equal access to shared decision making was felt by most staff to have been lost, on account of the leadership style of their first Dean (see 6.2.2). Formal structures and procedures were subsequently installed to protect and maintain that right of shared access.

Moreover, in each organisation there is a sense of continuity between heritage and everyday practice. Engaging in new experiences like electing a new Dean (and by implication ousting the current holder), can be traumatic, but still serves to enrich practice. Such major changes do not necessarily mean dumping the heritage. Although the Bank of Scotland's innovative engagement with remote banking in the form of Home Banking was a major new dimension, this did not undermine its managers' commitment to 'stewardship'. These differing social realities assimilate and structure knowledge in context specific ways, and both the content and process of knowledge assimilation becomes taken for granted.

7.2.2 Conceptions of social reality

The notion of social reality is supported from a variety of different intellectual perspectives: studies of culture in social anthropology and organisational behaviour; the examination of scientific knowledge claims within the sociology of knowledge; and philosophical accounts about the relationship between the individual and society.

At a common sense level it is recognised that organisations differ culturally. For example, the apparent informality and innovativeness of Microsoft is commonly contrasted with the formality and bureaucracy of IBM. Similarly, banks are stereotyped as very conservative,

risk averse, steady, whereas the image of telecommunication service providers, such as Timeplex, is that they are adventurous, risk taking, surviving in a very turbulent industry. The stereotype of academic institutions, perhaps less so for Business Schools, is of a place full of ideas, but out of touch with the real (competitive) world. These images grow out of people's experiences over time of dealing with these organisations, generalisations of industry comparisons, and attempts at conscious image management by the organisations through for example, the way they promote new products and services. These impressionistic stereotypes show something of the variety of ways that organisations are perceived, but is clearly not the basis for making judgements about what factors give rise to social reality, or why there is variety.

Existing empirical research on culture is a valuable source of inspiration for this study. A particular stream comes from social anthropology, and starts with Benedict's (1935) analysis of certain tribal communities. She argued that analysis of societies should be based on the wholeness of their cultures, rather than comparing isolated features, such as puberty rites or wedding ceremonies. These two events are social processes in their own right, but they are also features of a wider social institution. Similarly, in the context of this study, each organisation has its own rituals that punctuate strategy practice, whether it is product selection, the budgeting and planning process, or deciding who gets what grade of company car. These processes take their meaning from, and give meaning to, a wider social institution. Understanding how organisations make choices therefore requires presenting these rituals in context.

Benedict made a valuable contribution in providing detailed descriptions of three different cultures: Appollonian, Dionysiac, Paranoiac. Very crudely, an Appollonian culture describes a very ordered society "whose delight is in formality and whose way of life is the way of measure and of sobriety" (1935: 93). A Dionysiac culture describes a society where the 'value of existence' lies in breaking out of the ordinary, to reach for the extraordinary through excess. Members of the Paranoiac society see existence "as a cut-throat struggle [where] suspicion and cruelty" are the norms (1935: 124). How Benedict arrived at these

archetypes is not clear; she did not offer any underlying rules that helped her to construct them. We may say that the Bank of Scotland seems to have an Appollonian culture, or that practitioner behaviour in Timeplex rings of a Paranoiac culture, but why it is like that cannot be told within this framework.

The plurality of organisational culture is acknowledged among management writers; Harrison's (1972) work is probably the most widely quoted.[4] For example, Charles Handy's (1976) third edition of his popular paperback *Understanding Organisations* uses this framework to discuss culture, while some writers use Harrison's work as a context for discussing power (Kakabadse *et. al.*, 1987). Harrison's 'organisation ideologies' suggest four cultural types and matching structures: people culture/web structure, role culture/temple structure, task culture/ net structure, person culture/cluster structure. The key variables that determine which culture best describes an organisation are: history and ownership, size, technology, goals and objectives, the environment, and the staff.

Harrison's ideas unconsciously reflect preceding studies in varying respects: Burns and Stalker's (1966) matching of management control and structure to environment; Woodward's (1965) effective organisations using structures appropriate to their technology; Lawrence and Lorsch's (1967) observation of a link between differentiated cultures and work organisation. Essentially Harrison's work suggests that organisational success is contingent on an appropriate mix of cultures. For example, R&D should be 'task', while administration should be 'role', the former encouraging innovation and the latter supporting efficiency. The executive task is then to integrate these differentiated cultures, using an appropriate management style, structure, and control system. Here culture takes its place alongside control systems and structure, as variables that the rational manager manipulates in pursuit of effective organisational performance. As with Benedict's descriptions, it is unclear how Harrison arrived at these archetypes of culture. There are no rules, no underlying analytical framework.

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[4] Roger Harrison (1972) described 'organisation ideologies', which is commonly interpreted as 'culture'.

The history and philosophy of science also contributes to the notion of social reality. Kuhn (1970a) describes the history of science as long periods of 'normal science' punctuated by revolutions in thinking. These revolutions replace a scientific community's world view or 'paradigm' with another more 'roomy' version (1970b); a version that offers a more encompassing account of how the world works. He suggests that scientists' thinking coalesce around particular theories as they seek to account for the behaviour of physical phenomena, and that these theories are a composite of rational and non-rational intellectual commitments, or beliefs. Scientists spend their lives defending and extending their theories, sometimes loosing to rival theories.

Kuhn's ideas seem substantially similar to the work of Fleck L. (1979), an earlier and little known scientist.[5] Fleck analysed the development of syphilis and the Wassermann Reaction, using them as vehicles for his account of the historical development of scientific knowledge. Fleck (1979: 42) shows how different 'thought styles' of succeeding 'thought collectives' through the centuries accounted for syphilis. During the middle ages it was 'a carnal scourge' reflecting the centrality of astrology and Christianity at the time; later it was defined in terms of its treatability by pharmaceutical means, most notably mercury; now in modern times syphilis is defined in terms of the theory of disease. Kuhn's scientific community of practitioners sharing intellectual commitments seems like Fleck's 'thought collective', and Kuhn's 'paradigm' is very similar to Fleck's 'thought style'.

We may usefully equate Kuhn's scientific community or Fleck's 'thought collective' with the shared experiences and expectations of an organisation and its network of customers, competitors, regulators and other stakeholders: for example, 'the banking world' or 'the world of higher education'. Kuhn's and Fleck's questioning of the sequential and rational process of discovery in science is directly relevant to the assumption of managerial rationality. Formal accounts of successes in technological innovation, growth in market share, or profitability are often rational reconstructions of history rather than the achievement

[5] Although Kuhn acknowledges Fleck's influence on his thinking the latter remains little known. Perhaps, as Fleck observed in his own analysis, the world was not ready for his ideas.

of purposive strategy processes. Pascale's (1983) well known management case studies of Honda (A) and Honda (B) juxtapose this rational model with a model of strategy as 'gut feel' and learning-by-doing. Pascale shows that Honda (A) is an 'after the fact' rationalised account of the company's success in the USA, while Honda (B) is an account from Honda's managers about how they went about developing Honda USA.

Kuhn's ideas have influenced management research and teaching. It is fashionable to refer to the 'paradigm' of an organisation, often in a pejorative sense, as a mindset, a set of cultural blinkers preventing the organisation from seeing the real world. Based on his study of Foster Brothers, Johnson suggests that many organisations go through the motions of matching resources to the environmental challenge, believing that they are doing the right things, yet fail (see 2.3.4). Johnson concluded that organisational beliefs and practices act as 'cognitive filters'. Slowly and imperceptibly over time these cognitive filters prevent the organisation from seeing what the environment really needs. On the other hand, taking a positive view, Grinyer and Spender (1979) suggests that whole industries use 'recipes', patterns of managerial belief that help them manage. Recipes provide a way of circumscribing the unnecessary cognitive strain of always having to identify and consciously choose between alternatives. In either case change involves some kind of leap from one set of beliefs to another.

Writers on organisation theory, Burrell and Morgan (1979) and Morgan (1980), found value in Kuhn's approach, arguing that social theory can be analysed in terms of four paradigms or world views on social reality: functionalist, interpretive, radical-humanist, radical-structuralist. They also offered the rules that support these alternative social realities, showing that a particular reality depends on two dimensions. One concerns the degree to which society may be regarded as material and objective, or is the subjective and intersubjective experience of individuals. The other is a sociological continuum from 'regulation' to 'radical change'. On this second dimension individuals may regard social order and concepts like capitalism as useful and as something to be preserved, or they may regard such concepts as ideological prisons and alienating devices to escape from.

Briefly, the *functionalist* reality assumes that society has a material existence, and the *interpretive* reality assumes a socially constructed reality. Both *functionalist* and *interpretive* schools believe in an ordered and regulated reality, albeit the former sees such order as objective and the latter sees reality as subjectively ordered. The *radical-humanist* reality, like the interpretive school, sees a socially constructed reality but sees any patterning or order as constraints of our minds, 'glass ceilings' put in place by human minds, self imposed limits that lead to us being alienated from our potential. The *radical structuralist* shares this sense of humans existing within 'psychic prisons' but like the *functionalist* sees the social world as material and objectively independent.

Like most individuals, practitioners in the three organisations of this study interpret society as largely material, and their social order as something natural; they live in a *functionalist* reality. Timeplex practitioners see their competitive world, however unpredictable and unforgiving, as imposing a social order. Their competitive world is a source of freedom for those who are enterprising and are willing to pursue individual recognition and material gain through competitive action. In the Open Business School there is perhaps a more obvious tension within their view of the world, between seeing the social order as useful, and at the same time seeing it as alienating; a tension inherent in *radical structuralism*. Competition reminds them of the need to satisfy customers efficiently, but capitalism and social privilege are also seen as overwhelming ideologies, causing people to impute limits to their own potential. Overcoming this alienation is at the centre of the Open University's philosophy of open access and equal opportunity; a mission to help people achieve their full potential. Morgan's (1980) framework is useful as a guide to alternative ontologies, but is less helpful for comparing and contrasting alternative constructed realities.

7.2.3 Inclusiveness: Social reality and strategy practice

While Kuhn's paradigm has enriched the study of organisation and other fields, its use has also introduced problems. There seems to be some confusion, at least in the management literature and among writers on evolutionary economics, in the use of language to describe socio-cognitive frameworks. Masterman (1970) noted Kuhn's ambiguous use of 'paradigm' in his first edition (1962), citing twenty one different meanings, which she categorises as: metaphysical, sociological, and material. Kuhn (1970b) responded to Masterman's observation by acknowledging that his use of the metaphor is "badly confused ... which has handicapped me as well as my critics" (1970b: 234). In a postscript to his second edition (1970a) Kuhn, "clarifies" the confusion by stating that "a paradigm is what members of a scientific community *share*, and, conversely, a scientific community consists of [practitioners] who share a paradigm" (1970a: 176). This community share a paradigm both as the "constellation of group commitments" or "disciplinary matrix", and as "shared examples" of practice (1970a: 181, 187). Although Kuhn regards the relationship of learning by doing and learning how the world behaves as "a double role [where] the two cannot be separated"(1970b: 274), the nature of this interdependence remains obscure.

Approaching the field from a sociological perspective, Schutz's (1964: 73) notion of "recipe knowledge" seems to encompass both metaphysical and material aspects of reality. Berger and Luckmann take recipe from Schutz and uses it in both a sociological and a practical sense:

> on the pre-theoretical level, however, every institution has a body of transmitted recipe knowledge, that is, knowledge that supplies the institutionally appropriate rules of conduct. Such knowledge constitutes the motivating dynamics of institutionalised conduct. ... and constructs the roles to be played in the context of the institutions in question *(Berger and Luckmann, 1966: 83).*

> recipe knowledge does not concern anything except what I have to know for my present and possible future pragmatic purposes. ... a large part of the social stock of knowledge consists of recipes for the mastery of routine problems. ... I have little interest in going beyond this pragmatically necessary knowledge as long as the problems can indeed be mastered thereby *(Berger and Luckmann, 1966: 57).*

As in 'paradigm', the nature of the interdependence between the metaphysical and practice remains implicit in 'recipe'. Perhaps this has contributed to a flowering of different emphases and uses of 'paradigm' or 'recipe'. Grinyer and Spender acknowledges Schutz's recipe as a "pattern of managerial belief" (1979: 116), then give examples that seem more akin to Kuhn's (1972) 'shared examples'. Fincham *et. al.* use 'recipe' in a way that suggests a sociological interpretation: "dominant recipes were gaining currency at a broader level - involving *precepts* about new services, technologies, and organisational practices" [emphasis added] (1994: 301).

Many writers seem to have been inspired by Kuhn's and Schutz's work and introduced their own terms in a particular context: exemplar, pattern, regime, heuristics, model. Where writers assume Kuhn's 'shared examples', they refer to different aspects of that research space. For example, Nelson and Winter's (1977) 'regime' emphasises technicians' beliefs, while Georghiou *et. al.* (1986) take the same term for design configuration. Dosi (1982) writing on the economics of technological change, seems to use paradigm in a way that reflects Kuhn's multiple meanings, referring to exemplars and heuristics, the whole being guided by the invisible hand of engineers' blinkered imagination. For Dosi there is a sense of theory shaping practice, either continuously along a trajectory or through discontinuous change, but no sense of practice in turn shaping theory, or of theory shaping engineers' imagination. It might be that many of these writers intend to blur any distinction between the metaphysical, the sociological and the practical, but they do not make this explicit. Alternatively, it may be that despite Kuhn's clarification there remains a confusion about the use of concepts. Either way, the 'paradigm' has developed a life of its own. Grinyer and Spender seem to imply that one can read off in a direct way managerial beliefs by examining practice: "the pattern of diverse beliefs can be visualized as a multiplicity of constraints defining a feasible solution space within which the firm's strategy must be located" (1979: 130).

Mintzberg (1978b) and Morgan (1979) see the variety of use of paradigm as an abuse and confusion of meaning. However while the former calls for its abandonment, the latter emphasises its value. Morgan (1980) uses Masterman's (1970) critique to suggest a hierarchy

for organisation theory building in social science. He regards 'paradigm' as the metaphysical level at the top, within which there are "metaphors" or "schools of thought, ... those communities of theorists subscribing to relatively coherent perspectives ... based upon the acceptance and use of different kinds of metaphor as a foundation for enquiry" (Morgan, 1980: 607); within metaphors are 'puzzle solving activities'.

In this hierarchy social reality shapes everyday practice. At the same time the routine and taken for granted nature of practice reinforces and elaborates social reality. The notion of inclusivity and inseparability between practice and social reality, and its importance is recognised by Schon (1963) in his discussion on the role of metaphor in facilitating technological change. Schon observes that we draw on metaphors embedded in our culture and language to explain or give meaning to new situations. Furthermore in the process of application the metaphor might also be developed (elaborated, transformed) as it encompasses one more new situation.

> Our culture provides the materials from which our metaphors are made. Our technology, our social system, and, in the informal sense of the term, our theories of the world, provide us with concepts for displacement. They are our 'given'. ... The new metaphor emerges out of the interaction of the cultural gifts with the demands of the situation *(Schon, 1963: 65, 73).*

Similarly Pondy in his study of the role of myth and metaphor in organisation notes that "metaphor *simultaneously* facilitates change and *reinforces* traditional values. ... This capacity of metaphor to carry several meanings at once suits it ideally to express the simultaneous facilitation of change and continuity" (1983: 164, 165). Bourdieu in his analysis of practice and drawing on examples from anthropology, observes that theories of how the world works are implicit in practice:

> practical logic is able to organize all thoughts, perceptions and actions by means of a few generative principles, which are closely interrelated and constitute a practically integrated whole .... In other words, symbolic systems owe their practical coherence ... to the fact that they are the product of practices *(1990: 86).*

Recognition of this reciprocal relationship between the metaphysical and the practical is important for understanding the nature of practice. Notions like 'best practice' embody

shared beliefs about the nature of the organisation's competitive position. Inclusiveness emphasises the "continuity and consistency in behaviour and expressions of belief" (Loveridge and Pitt, 1990: 96). The relationship is one of inclusivity rather than duality; in accounting for how the world behaves they are not independent and distinct principles like good and evil. Taken for granted theories about how to compete in the banking community (eg opening more branches), or how experiences should be ordered (hierarchy), or a belief in the inalienable equality of individuals' access to education, do not guide practice as some mysterious force. Practice is imbued with those theories of how the world behaves; practice is the embodiment of social reality. This relationship does not mean that the metaphysical and practice form some kind of closed system. Practitioners' social reality is not fossilised, and their practice is not trapped by their shared reality.

The inclusivity of practice and social reality is a source of ambiguity and provides for the unceasing development (elaboration, transformation) of both practice and social reality. Neither social reality nor practice can be read off like instructions. This ambiguity includes Bourdieu's "practical coherence", consisting of "on the one hand, their unity and their regularities, and on the other, their 'fuzziness' and their irregularities and even incoherences" (1990: 86). This sense of practice being stable, guided and at the same time always provisional is explored in chapter 8. Inclusivity allows us to acknowledge that strategy practice constitutes, and is constituted by, practitioners' social reality. Such an inclusive relationship goes some way toward explaining the profound difficulty, if not futility, of attempts to design organisational culture; and trying to impute a causal relationship between strategic intent and competitive performance (see 9.4).

7.2.4 Individual and group psychology

While these ideas about culture, paradigms and recipes are difficult to compare directly, nevertheless they are useful in throwing light on the social processes underlying social reality and strategy practice, albeit from different intellectual perspectives. These ideas also show the difficulty of bounding the indeterminate and provisional character of social processes.

Many have tried to make sense of these socio-cognitive processes by investing hegemony in either the psyche of society and social structure, or in the psychology of the individual.[6]

For example, Durkheim (1976) in his analysis of religious forms introduced the 'social group' as "a mysterious, super organic group mind" (Douglas, 1987: 14). Fleck L. introduced the 'thought collective', to describe the shared practices, experience, expectations of a social network or community of practitioners: The "insistent clamour of public opinion, ... the gathering of collective experience, ... laboratory practice, ... continuous co-operation and mutual interaction among the members achieved the collective experience ... in communal anonymity" (1979: 77,78).

Although Fleck's 'thought collective' is made up of individuals, the critical focus is their shared experiences and exchanges. Indeed Douglas, (1987: 16) suggests that 'thought world' better captures this meaning of Fleck's 'denkkollectiv' than 'thought collective'. This meaning of shared experiences and expectations of a thought collective very usefully reinforces the sense that an organisation is bounded less by its legal definition, and more by its social network of stakeholders, it customers, suppliers, competitors, regulators and others that together construct their shared reality.

The members of a 'thought collective' share a particular 'style' of thinking, and it performs different roles at the group and the individual level. At the level of the group this 'thought style' is "the special carrier for the historical development of any field of thought, as well as for the given stock of knowledge and level of culture" (Fleck L., 1979: 39). For the individual the 'thought style' is "the readiness for directed perception, with corresponding mental and objective assimilation of what has been so perceived" (Fleck L., 179: 159).

However, there are problems with these ideas. For example, Fleck L. (1979: n. 7, 179) acknowledges that the notion of 'thought collective' is problematic because it invites a view of a collective psyche that is somehow material. Against this he argues that if scientists can

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[6] The 'structure-performance-conduct' versus the 'resources based' model of strategy rings of this tension.

attach value and meaning to statistical data, then why not the concept of thought collective if it helps to increase understanding:

> the boundary line between that which is thought and that which is taken to exist is too narrowly drawn. Thinking must be accorded a certain power to create objects, and objects must be construed as originating in thinking; but, of course, only if it is the style-permeated thinking of a collective *(Fleck L., 1979: n. 7, 181)*.

Kuhn is much more ambivalent about Fleck's work because he regards Fleck's whole language as suggesting that the group is the individual writ large. (Fleck L., 1979: x; Douglas, 1987: 9). In contrast Durkheim thought of the individual as society writ small:

> classifications, logical operations, and guiding metaphors are given to the individual by society. Above all, the sense of a priori rightness of some ideas and the nonsensicality of others are handed out as part of the social environment ... the reaction of outrage when entrenched judgements are challenged is a gut response directly due to commitment to a social group *(Douglas, 1987: 10)*.

Debates about the processes and direction of causality of socio-cognitive processes continues. For example, questions remain about the relationship between a thought style as "a latent dispositional state giving an enduring character to thought collectives, and thought style as an active expression of a thought collective" (Fleck L., 1979: 158). Douglas also asks whether the collective comes before style or vice versa? If style leads then how does that come about? (Douglas, 1987: 18).

It seems inappropriate to ask whether individual or group psychology is the more meaningful metaphor for examining strategy practice and shared reality. The picture is much more complex, involving interactions between individuals as individuals with distinctive experiences and expectations, and individuals as representatives of groups.

7.2.5 Does innovation require "unlearning"?

While encouraging practitioners to remain self-reflexive (see 7.1.1), Smircich and Stubbart recommend that practitioners develop the art of "unlearning": "learning compels forgetting. In fact, organizational wisdom may require continuous unlearning" (1985: 732). They

suggest that 'behavior programs' or recipes get in the way of enacting and testing "one's physical, informational, imaginative, and emotional resources. Without sufficient resources (or without the ability to think imaginatively about what might constitute resources), one simply cannot support many conceivable enactments" (1985: 732).

While they acknowledge the constraining influence of recipes, the metaphor of unlearning seems to equate companies with computers; it suggests that, as with computers, companies can erase their history and institutional commitments. Berger and Luckmann show that habit formation is an inescapable part of everyday practice, and that it beneficially provides a background that "opens up a foreground for deliberation and innovation" (1966: 71). Industry recipes help managers to cope with the endless variety of ways of competing by narrowing choice (Grinyer and Spender, 1979). Further, organisational routines play a critical role in facilitating efficiency gains. As routines become established they enable managerial resources to be released over time, resources that may create further capabilities.

All three companies studied here, and many everyday examples, show that innovation involves a never ending stream of, and fusion between, deliberate and serendipitous aspects of assimilated knowledge into new configurations of knowledge, capabilities, artefacts, and work organisation. As Schon shows innovation involves interpreting the new situation in light of an old theory or metaphor:

> when we are intelligent in dealing with the new we deal with it as, on the basis of, through, or in terms of the old, still without reducing it to the old. But what does it mean to do this? We are figurative rather than literal. We are approximate rather than exact. We use analogy *(Schon, 1963: 23).*

Technological change managed in this way, consciously or unconsciously, always enriches our intellectual resource. Furthermore, as argued earlier, the inclusiveness of social reality and strategy practice renders the possibility of unlearning untenable. For a community of practitioners or 'thought collective' to selectively forget aspects of practice requires some corresponding regression of social reality, and a denial of the role of history in shaping practice.

7.3 CONCLUSIONS

This chapter has explored the constructed nature of social reality from various angles. There are a range of concepts (culture, paradigm, recipe, thought style) that shed light on the notion that communities can be identified in terms of 'taken for granted' and shared beliefs, what counts as knowledge, and practices. Social reality is not static; a community can change its view of how the world works, both incrementally over centuries and through infrequent major intellectual leaps. The review has emphasised the inclusivity between social reality and practice to reinforce the sense that practice reflects a shared theory of how work should be organised; the Bank's guiding principle of stewardship and its practice of looking for efficiency gains in every quarter of its operations, are inclusive; one reinforcing the other (ch. 5). There is a dynamic and developmental quality to this inclusiveness, due to practitioners' differentiated understanding of what constitutes stewardship and what constitutes an opportunity for efficiency gains.

Indeed, the inclusiveness of practice and shared reality have implications for how practitioners work together, affecting for example, what is regarded as rational behaviour, work organisation styles and practices, collective decision making styles, attitudes to uncertainty and risk, and preferred styles of economic transaction. Collectively unconscious and uncritical acceptance of metaphysical ideas; ideas that shape how practitioners learn and deal with anomalies thrown up by the exigencies of the day, are reflected in the practice of strategy. The ambiguities and inconsistencies of inclusiveness unavoidably provide practitioners with scope for novel reinterpretations of their world, expressed as innovative artefacts and ways of working.

Chapters 8 to 10 stand back from the detailed descriptions of each case study presented in part II, and offers a single coherent account that embraces all three cases. The case study evidence is interpreted in ways that offer an alternative explanation for the complexities of strategic choice and organisational context. It is argued that this alternative explanation provides a richer guide to understanding strategic choice and organisational context by

analysing the practice of strategy. Case evidence is mobilised to show both a profound similarity, and important differences between the organisations. In particular the analyses show: that the practice of strategy is socially constructed (chapter 8); the role of capabilities and the interpretive flexibility of technology in shaping reality (chapter 9); the possibility of plural social realities (chapter 10). This argument is supported by comparing and contrasting case study evidence, as well as drawing on publicly available examples where appropriate. The overall aim is to show that in all three organisations the practice of strategy is socially constructed, and that the socially constructed reality of each organisation is different. The analyses also show that innovative behaviour is inherent to the construction, the character of which varies with alternative realities.

Chapter 8 suggests that the practice of strategy has both a spatial and temporal dimension. Whereas determinate strategy unfolds in time, moving synchronously from formulation to implementation, practice acknowledges that practitioners deal with the immediate future by assuming the continuity of the immediate past, drawing on their taken for granted and shared meaning. Practitioners rarely interrupt their commitments to the past, and expectations of the immediate future, and they rarely engage in detached contemplation and assessment of all theoretically possible futures. Specific sections examine how practitioners construct strategy, by examining the influence of various features of a shared reality within everyday practice, such as the influence of heritage, shared meaning, politics, and how anomalies are managed; features of everyday reality that practitioners do not normally focus on as they go about their daily practice.

Chapter 9 focuses on three areas of deliberate strategy that contribute to the social construction of reality: capabilities, technology, and strategic intent. First, in acquiring and applying their knowledge practitioners have limited conscious access or control over their social reality, nevertheless they contribute to its maintenance and development through dimly conscious recipes of behaviour and the creative interpretation of those recipes, as well as the continuous development of new recipes. Second, despite the guiding influence of recipe knowledge, the interpretive flexibility of technology-practice contributes to technological

innovation, through for example the inseparability of facts and values, and serendipity. Third, the assumption that, through strategic intent practitioners control revealed performance, remains unproven. For example revealed performance may be manipulated to reflect intent (9.4).

In contrast to chapters 8 and 9, chapter 10 shows that important differences between the organisations suggest that each organisation is host to a limited number of partially discernible constructed social realities; practice in each organisation reflects one of only a few distinctive social realities. Just as different communities, whether primitive or scientific, may have distinctive social realities, fieldwork evidence suggests that organisations have distinctive social realities. The very heterogeneity of individuals' and collective experiences is not infinitely variable, rather such variety tends to coalesce as discernible features of a limited number of social realities. Practice among individual organisations' members reflect distinctive social arrangements, assumptions, and ideas of how the world works and how to behave within it; how to co-operate and how to compete. Chapter 10 explores a framework for comparing alternative and equally viable realities. Strategic choice, or more appropriately 'social choice', and what counts as innovative behaviour, is an integral part of these constructed realities.

Accepting that the practice of strategic is constructed, and understanding an organisation as generating the social reality that gives meaning to strategy practice, enriches our understanding of the management of innovation. The meaning and value of innovation and innovative practice is given by practitioners' shared reality. Such insights have implications for practitioners and invite further research into, for example the development of analytical tools that are sensitive to a social construction epistemology. Some of these implications will be developed as part of the conclusions in chapter 11.

8

The social construction of strategy

8.1 INTRODUCTION

The accounts of the three organisations presented in part II seem to support the notions of strategy as determinate and as managed chaos, concepts discussed earlier in chapter 2 (see also 4.7, 5.7, 6.7). Ascom Timeplex managers and engineers are caught up in the cut and thrust of personal survival; there is no room for strategising. Bank of Scotland managers seem to spend much more time contemplating their options and looking to the long term; action is guided by analysis and deliberation in advance. The Open Business School seems to reflect both deliberate and managed chaos metaphors: much time is invested in strategic planning and scenario testing, but at the same time individual freedom among managers and academics is jealously guarded. In all three organisations there is also a sense that practitioners are not sitting outside of the practice of strategy, pushing the organisation this way or that in some dispassionate way, but are very much part of their strategy. Their practice seems framed by their assumptions about what is feasible; they seem to have a collective view of how to co-operate and compete. Their practice, shared experiences, and expectations about how their organisation should develop seem to reflect a collective and taken for granted view of the world (ch. 7).

While chapter 7 explored what social reality is, this chapter focuses on how practitioners construct that reality. It explores the socio-cognitive processes that practitioners are immersed in, and the shared assumptions that guide practice. Sections two and three paint a broad picture of the process of social construction, by considering its spatial and temporal dimensions. Section two sketches the spatial dimension by describing how players in the game of charades go about agreeing on its outcome. It shows the importance of interaction and negotiation among the players; the importance and difficulty of achieving a shared understanding of each other's meanings. Section three then outlines the temporal dimension

of organisations constructing their social reality by selecting a slice of the Bank of Scotland's historical development; how the International Division has grown from being an oil financing speciality within the Bank to being an organisation with substantial international interests and autonomy from the Bank. This example shows that the practice of strategy is a never-ending process of practitioners drawing legitimacy for present and future action from their heritage, interpreting the Bank's way of working (recipes) in light of the exigencies of the day, and applying their capabilities in ways that reinforce, and at the same time extend, the Bank's recipes.

At a more detailed level of analysis, and taking examples from all three cases, section four discusses a variety of socio-cognitive processes that practitioners are engaged in as they shape everyday strategy practice. Some of these processes give stability and direction to practice: 'shared meaning' (8.4.1); 'enacting intersubjective reality' (8.4.2) hinted at in 'charades' in terms of social interaction and negotiation; 'heritage and the ordering of social reality' (8.4.4), an issue introduced in 7.2.1. While attention to more immediate operational problems contributes to stability through routinised behaviour, practitioners do at the same time remain aware of the need to deal with more remote strategic issues, and is the focus of the 'here and now' (8.4.3).

Other socio-cognitive processes infuse practice with instability: 'politics' (8.4.5) examines how political behaviour among practitioners shape practice; 'order and disorder' (8.4.6) shows how information flow can contribute to competing constructions of reality within the organisation, sometimes leading to conflict. Practice both solves problems and generates unexpected situations and events, and 'anomalies' (8.4.7) looks at how practitioners' continually solve but at the same time generate problems. The sense that strategy practice is both stable and provisional at the same time is reinforced by looking at how practitioners make sense of their competitive reality through 'applying patterns' (8.4.8) and 'constructing boundaries' (8.4.9). Suggesting that practice is both stable and provisional at the same time does not mean that practitioners are confused, rather that guided behaviour and novelty are

inherent to the practice of strategy; practice reflects the ambiguity that constitutes the inclusivity between social reality and practice (see 7.2.3).

8.2 CHARADES

The idea that practitioners construct a reality seems difficult to communicate, especially to those who claim to be realists, and only deal in 'reality'! A simple device is needed to help get the essence of the idea across, or what Benedict calls a "detour" (1935: 39). To help understand the process this section shows how actors construct meaning in the present, and the next section changes focus to sketch that construction as never ending and provisional.

The game 'charades' is often played at parties (Weick, 1979). It involves an actor or actress standing before a small audience. The person standing before the audience thinks of a well known title, and then tries to communicate that name to the audience, using action and mime, but not speech. To make the game manageable and interesting they all agree on a theme of say films, games or books.

The performer has a clear idea in their mind as they try to act it out. The audience on the other hand sees a mixture of confusing signals and possible interpretations. The performer in turn tries to make sense of the audience's expression of its understanding of the acted-out-title, and adjusts their performance accordingly. At the same time the audience continually try to make sense of the performer's adjusted signals, taking into consideration past selections and rejections. It is an interactive and constructive process, with both performer and audience encouraging some interpretations and ignoring or discouraging others. The performer is co-operating with the audience, busily constructing a shared understanding of the subject. As the game progresses sections of the audience may start to find difficulty in suspending judgement. Slowly they become increasingly committed to thinking about a particular book or narrow range of options. They may become quiet, or pursue their beliefs more noisily, or seek clarification. The point is that the audience may begin to fragment. Now imagine two or three performers vying for the audience's attention ....

Replace performer with organisation, and audience with competitive environment. Organisations impose meanings on their environment, most obviously during the introduction of a new product. The organisation then uses the environment's responses to organise further responses. At the same time the environment develops its own expectations of what the new product or service should achieve, expectations that the innovating organisation routinely tries to make sense of. Unlike the performer in charades, the organisation may not have a clear idea of what it is offering, or what is the most appropriate strategy for delivering their novel product or service. Thus they are keen to make modifications in light of customers' developing expectations, and to differentiate it in light of competitive developments.

The interactive and constructive process is further entangled because the organisation, like the performer, finds difficulty in selecting clues against the noise of competing interpretations and requests for clarification. Further, cumulative experience among customers and competitors and other stakeholders leads to differentiated expectations and variety, and more regulation. This multi-node dialogue between "relevant social groups" (Bijker, 1987: 4) routinely constructs reality, organised as internal and external environments.

Notions of 'strategic learning' focus on the organisation's ability to interpret signals from an objective environment, (i.e. an environment, internal and external, whose material existence is not questioned), and the development of strategy that incorporates this learning. However strategic learning ignores the subjective construction of this reality, the interpretive flexibility of signals, and the fragility of the internal/external distinction.

8.3 THE NEVER ENDING CONSTRUCTION OF REALITY: FROM NORTH SEA PETROCHEMICAL FINANCING TO GLOBAL PAYMENT SYSTEMS

This brief story of the development of the Bank of Scotland's (BoS) International Division is used to show the temporal dimension of constructing social reality. A similar account could have been presented about the emergence and growth of BoS's Centrebank, or Timeplex, or OBS. The value of the example is in showing that there is temporal continuity of the organisation's social reality, that social reality is not static but developmental, provisional

and uncertain. The example shows that an organisation's socially constructed existence is maintained by its links with its heritage and aspirations for the future, and the interplay of subjective and objective reality over time. It also highlights that the never ending exercise and development of the organisation's capabilities demands creative interpretation of decision rules, an issue further developed in 9.2.

The BoS International Division currently enjoys social and economic relations with oil and gas multinationals, UK corporate financing, and more recently the British government's Department of Social Security (DSS). These diverse relations are based on capabilities in financial risk assessment in exploration and production of oil and gas, and more recently capabilities in managing the international transfer of large volumes of low value payments to British pensioners around the world. These socio-economic relations and capabilities have emerged and developed over the last 20 years and the Bank's executive is keen to explore and create new ones.

8.3.1 Early beginnings

The International Division grew out of BoS' development of its capabilities in North Sea oil and gas financing during the early 1970s. The Bank's engagement with North Sea oil and gas project financing was a natural extension of its Scottish financial services operations because this new sector fell within their home market, Scotland. Although the oil and gas sector was new to the Bank, there were common features such as risk assessment, between the peculiarities of oil and gas project financing and the existing project financing capabilities of the Bank. These commonalities meant that in the early days the International Division operational practice drew heavily on the Bank's existing practice, centred on other industrial and commercial project financing capabilities.

The Bank's entry to this new sector was also driven by an imperative. The Bank regarded the prospect of foreign banks, especially English banks, prospecting for oil related financing opportunities in its own back yard, as massively real (see 5.6.1). The Bank's successes lead

to greater involvement in this sector, exposing BoS to the wider financial needs of multinational energy companies. BoS increasing became a part of the objective reality of these international energy companies, quickly becoming institutionalised in the eyes of potential customers, competitors and the government as the UK's first "oil bank".[1]

Acquiring the status and reputation of "oil bank" marked the Bank as a legitimate provider of project financing in the energy sector. In other words, its executive and other operating companies and regulators within the sector believed that the Bank had some distinctive capabilities that were useful and justified its position in that sector. The Bank's positive (subjective) experience and (objectified) success in this new sector, encouraged its executive to pursue a greater role in shaping the broader sector of international banking, setting up offices first in the USA, then Hong Kong, and Moscow. The International Division was emerging as a distinctive entity; part of, yet differentiated from, the Bank of Scotland.

8.3.2 Recent developments

During the last 20 years BoS has been largely successful in assimilating new project financing capabilities; creatively exercising its existing capabilities and developing new ones in new situations. The International Division is one objectification of those capabilities, and Centrebank is another. Centrebank emerged in the mid 1980s as a subjective response by the Bank's executive to the actions of English banks during the 1970s (5.6.1). That response crystallised as Home Banking, and a new concept of 'remote banking' was born.

The International Division has also begun to develop other distinctive capabilities, not based on project financing but on international electronic fund transfer capabilities, emerging in the late 1980s with TAPS (Transcontinental Automated Payment Service) (see 5.6.2). It was an innovation, using technological capabilities that the Bank had been elaborating and applying over the years in its existing business areas. These existing capabilities were now being

[1] From "A brief history of Scotland's first bank", published by the Bank in 1995 to commemorate its 300th centenary.

reinterpreted in a new application; what Abernathy and Clark (1985) might call a 'niche' innovation, and Schon (1963) a 'displacement of concept'.

The profitability of the TAPS scheme depends on the Bank's capabilities in managing low value, high volume fund transfers at low cost. This is a task the Bank's executive feel fully able to manage; they have been honing such capabilities for centuries. The International Division continues to shape TAPS, continually monitoring the process, looking for ways of reducing cost, including improvements to the technology and work organisation. The International Division, as manager of TAPS, has established credibility with the DSS as evidenced by the renewal of its contract with the DSS every year since 1987.

In this example the capabilities and competitive environments of both BoS and its International Division have been shaped and reshaped throughout the last two decades. This shaping has been due to social and economic relations between the Bank and many other relevant social groups over the period, including oil and gas multinationals and DSS, co-operating banks around the world, and British citizens depending on regular fund transfers.

8.3.3 Options for growth

Over the last two decades the International Division has created, developed, and established a robust and legitimate role for itself, both in the subjective reality of the Bank's executive, and within the objectified reality of international banking. This is evidenced by the Bank's executive deciding that the International Division needs to increase the proportion of non-UK income relative to UK income. They see the International Division as having a larger role to play in international financial services, in its own right. Furthermore, the Bank's executive does not want the Bank to be left behind in the general trend among companies to become global, and there is also the threat of competition from a wider more open European Union. The expectations of the Bank's executive continues to elaborate in light of its achievements to date, and against anticipations of things to come, in particular the perceived opportunities of the international financing sector.

Regardless of the growth of the International Division, a dominant but not unanimous view among the Bank's senior managers is that BoS is first and foremost a Scottish bank, whose home market is Scotland. The Bank's early beginnings in North Sea oil and gas financing is consistent with this subjectivity, and is reflected in the International Division's competitive performance, where 20 years later the majority of its income is still largely from UK opportunities. Although the shared reality among the Bank's senior managers remains stable around the importance of the Scottish market it is a differentiated rather than a homogeneous view of the Bank's competitive world. The managers of the International Division and Centrebank have ideas about how their divisions should develop that conflict with the aims of the Branch Banking Division. This differentiated subjectivity provides scope for interpreting and acting upon opportunities in different ways; and for the continued creation of differentiated capabilities among the Bank's divisions.

When Campbell became General Manager of the International Division in 1994, he was tasked with growing the non-UK proportion of the Division's business (see 5.5.3). He recognises that in principle his choices are infinite, he has the authority to do whatever he desires within the confines of financial services; he can be as "opportunistic" as he likes.

> I could be looking for acquisitions, I could be looking for start-ups, I could be looking for sharing in syndicated deals, ... I could just go to American banks and say 'lets do asset swaps. You give me your mortgages and I'll give you some of ours'.

Each of Campbell's options are subjective realities that carry different consequences for the Bank's objective reality should any of them be realised. For example, Campbell's preferred solution to engage in asset swaps with American banks would be the easiest and fastest way of achieving his aims. However, he also recognises that his preference would undermine the reality that the domestic Branch Banking Division has helped shape over the last 300 years. The Branch Banking Division's range of strategic options do not include depletion of domestic mortgages (see 5.5.5).

This brief account shows the Bank's future reality is being shaped by various factors: negotiation and compromise among its managers (Cyert and March, 1992), institutions

already in place, and attempts by the Bank's managers to take action that seems consistent with their understanding of the Bank's past.

The earlier description of the game of charades highlights the spatial dimension of practice: people working together; making 'on the spot' decisions in the heat of the game; applying meaning to gestures, signs, ambiguity; sometimes hesitating, at other times making intuitive leaps. Charades gives a sense of people shaping practice through differentiated understanding, interaction, and negotiation. The account of the development of the International Division highlights a temporal dimension: the influence of history; expectations for the future; situations demanding urgent action interspersed with time for more deliberate and detached decision. The temporal dimension shapes practice, and gives meaning to strategy in the present. The preceding discussion of the spatial and temporal is an analytical convenience to explain in broad terms the socio-economic processes that shape practice. There can be no separation of the spatial and temporal since charades unfolds in time, and the International Division is party to numerous socio-economic relations at any moment. The following sections explore in greater detail the socio-cognitive processes that shape practice; processes from which participants draw their identity.

8.4 EVERYDAY PRACTICE

Strategy is a social institution, constituted of "practices that are regularly and continuously repeated, are sanctioned and maintained by social norms, and have a major significance in the social structure" (Penguin Dictionary of Sociology, 2nd ed. 1988: 124). Strategy as practice is distinct from strategy as determinate (synoptic and rational anticipations determining co-ordinated action) because the former, according to Bourdieu

> unfolds in time and it has all the correlative properties, such as irreversibility, that synchronization destroys. Its temporal structure, that is, its rhythm, its tempo, and above all its directionality, is constitutive of its meaning. ... In short, because it is entirely immersed in the current of time, practice is inseparable from temporality, not only because it is played out in time, but also because it plays strategically with time and especially with tempo (1990: 81).

Everyday practice constructs, and reflects, social reality as objectified and taken-for-granted experiences. Although its outcomes and processes are perceived as objectively real and overarching, it is produced by collective human enterprise. In this, strategy embodies beliefs about both the internal organisational world and the competitive environment, and their relationship. It is a process that is guided by a pattern of ideas, including assumptions about the best way to compete, and social interactions drawn from both sides of the 'internal-external boundary'.

Strategy choice shapes, and is shaped by, everyday knowledge, routines, experiential and reflective learning, and an implicit shared understanding, more than formal overarching theories about how the world works. Strategy as 'prescribed practice' (e.g. corporate planning models, mission statements) punctuates rather than describes practice. It is their shared understanding that determine the beliefs and values that bind practitioners together into organisational wholes. Although a few staff may be attempting to manage the organisation according to some grand design or fashionable theory (e.g. total quality, empowerment), everyone that works for or is otherwise attached to that organisation constitutes the social reality of that organisation; a reality from which those individuals in turn draw their own identities. That reality comes from taken for granted social prescriptions about how they should co-operate and compete; it cannot be read off from organisation designers' blue-prints.

What follows is an attempt to sketch out some of the main features of strategy as everyday practice. In this sketch strategy practice is the collective interpretation and expression of shared meaning; where strategy is both routinely guided by and contributes to a more or less coherent social reality. Strategy practice is a mixture of making sense of the immediate past, and engaging with the urgency of the immediate future; a process full of "equivocations, innuendoes and unspoken implications of gestural or verbal symbolism" (Bourdieu, 1990: 81). It is at once a routinised and a creative process, ordered and disordered, reinforcing and elaborating yet being constrained by rules of behaviour of the social reality.

8.4.1 Shared meaning

Strategy practice is a socio-cognitive framework of shared meaning. Both managers and their staff in BoS, collectively subscribe to a common framework of 'stewardship'. In this game everyone has a designated role in the lifelong task of pursuing efficiency, the legitimacy of which is recognised by all.

The senior management of the Bank can be seen performing their allocated role, continually measuring the effectiveness and efficiency of their Divisions and business units. Charts on internal notice boards give regular feedback on the Bank's monthly productivity performance. Managers of the Card Services Division are engaged in an on-going attempt to automate human intervention processes. Similarly in the Branch Banking Division, 'front office' (counter services generally) and 'back office' tasks are being changed. The front office will focus on selling the Bank's services, with the back office managing all paper transactions (cheques, cash, etc.). Here the Bank's executive is also restructuring its relationship with customers, through the encouragement to use cash machines and telephone or computer links for financial transactions, and to use counter services for financial advice and purchasing financial products. The managers of Divisions are following each other's moves carefully in the hunt for ways to improve efficiency of internal processes and relations with customers.

In performing their role the Bank's managers consciously and unconsciously draw on influences outside the Bank. For example suppliers of the Bank's specialised paper processing technologies keep the Bank's managers up to date on developments in automation. As part of being responsible stewards, managers must pay attention to regulatory standards and market pressures. For example, some of the above changes reflect the need for more financial advice and financial transaction security. The robustness of its lending processes - for example, how adventurous or conservative it may be - is always of interest to that regulator, the Bank of England.

Staff at all levels work within attributed roles, and contribute by being reflective about their own work processes and how it could be improved. Individuals are singled out for praise when their suggestions are instrumental in these improvements. Perhaps the Bank's senior managers are dominating the staff, but the staff seem happy with the arrangement, as evidenced by the low turnover of staff. It may be that everyone takes for granted that efficiency is the natural standard that they must work toward. It may also be that financial imperatives have been shaping everyone's reality, giving rise to a shared understanding that financial efficiency is the right priority, determining how the Bank should behave. It is less a question of domination through managerial preferences, and more a general consensus that the pursuit of efficiency is in everyone's interests. Individual gain lies in the proper respect for an established authority consisting of bounded responsibilities. Everyone knows their place in relation to the authority structure, and "stewardship" is the watchword.

Competitive pressures and practices reinforce the Bank's ideas on the best way to compete, and many of these ideas are shared by its rivals and clients who are equally preoccupied with efficiency. At least one credit card processing account was lost during 1994 because the customer thought it could process its own cards more cheaply than using the Bank's Card Services Division (5.3.2). Managers and staff alike interpret such events as proof that the search for efficiency is natural, and of paramount importance.

The Bank's view of the best way to compete is about prudent management of its resources and the relentless pursuit of cost efficiency. This is reflected in its internal arrangements and its relationship with the external environment, and is constructed or accomplished through 'practice and discourse' (Knight and Morgan, 1990) among staff, with customers, suppliers, and regulators. The Bank's staff share generalised expectations about what stewardship means, and these expectations help them to express and interpret their relationships internally and with others. This shared meaning, the social reality of the Bank, is expressed through everyday practice as an ensemble of distinctive capabilities and rules of behaviour. These capabilities and rules are only dimly available to the collective consciousness of the Bank's staff, they are pervasive and taken-for-granted.

The Bank's decision rules are conditioned by, but also condition, its social reality; one reinforcing yet elaborating the other through continual refinement of decision rules: through the creative interpretation and expression of taken-for-granted practices; drawing on the staff's ability to invoke appropriate tacit knowledge and behaviour to match the social circumstances they perceive themselves to be in. The Bank's orderly progression over the centuries, involving interaction with its customers, regulatory authorities, and its continual improvement of work organisation practices, increasingly based on IT, is succinctly captured by the existence of over 300 'standard letters', covering mail shots, courtesy letters, warning letters to loan defaulters using increasingly strong language, and so on. In its discourse with the outside world, staff may choose from any of these, or 'cut and paste' to make a customised letter. This accumulation of letter formats over the decades is a crystallisation of the Bank's routine refinement of its recipe. As a routine practice this form of discourse reflects an interpretation of a very ordered world.

While 'stewardship' or financial prudence underpins the practice of strategy in the Bank, Timeplex managers and engineers are focused on the monthly or quarterly 'bottom line'. Timeplex's small size means that it lacks the financial power to make itself heard above the competitive clamour. Theirs is a similar story for many companies in the fast developing telecommunications industry. Apart from competing on output (products and services), Timeplex and its competitors are also competing for investment, often becoming hostage to the fickleness of financial markets. This environment, created by the competitive drive of Timeplex and its competitors and financial markets, is imposing a reality where competition is a scramble for financing, market share, and profitability. It is a jungle compared to the relatively cordial behaviour among the Bank and its competitors, supported by professional and governmental regulatory mechanisms. The effect on Timeplex's internal activities is an overriding concern with the colour of 'the bottom line', whether the ink is black or red. While Timeplex is trying to impose meaning on the environment through new products and services, it remains exposed to surprises from its investing community, who are major social constructors of the same environment. A loss of confidence in the financial markets can very quickly translate into a loss of value in Timeplex's parent, Ascom.

In Timeplex everyone is aware and critical of the short-term perspective of the industry, the financial markets, and the company's leadership. Nevertheless, monthly and quarterly sales and profit presentations are imperatives, trials of strength, and key milestones in the calendar. Everyone tries to show how well they did, smashing the sales record for this month, or working well within budget for the second month in a row. The practice and discourse in Timeplex is all about getting orders, as many of them as quickly as possible. They have to do well against stiff competition, and Ascom's share price is under continuous pressure, a pressure that bears down on Timeplex to generate more profit. Bending the rules, by perhaps promising an unrealistic delivery, or promising a product that is still in the 'field-trials' stage of development, may cause friction but getting the order is everything. How to satisfy the unrealistic promise is a headache for someone else, who in turn is practised at finding ad-hoc fixes. Many established and formal mechanisms are thus bypassed. This individualism promotes a social reality of unbridled entrepreneurialism, which at the same time reinforces individualistic behaviour.

8.4.2 Enacting intersubjective reality

Berger and Luckmann usefully capture the centrality of interaction and communication between practitioners in the shaping of their reality:

> the reality of everyday life further presents itself to me as an intersubjective world, a world that I share with others, ... I cannot exist in everyday life without continually interacting and communicating with others, ... I know that I live with them in a common world, ... Most importantly, I know that there is an ongoing correspondence between my meaning and their meaning in this world, that we share a common sense about its reality *(1966: 37).*

Although the Bank's history constrains choice by erasing some and facilitating other opportunities, the social construction and precariousness of knowledge means that history may still "be reinterpreted without necessarily upsetting the institutional order as a result" (Berger and Luckmann, 1966: 87). We get a glimpse of how Campbell, General Manager of the International Division, goes about looking for ways to reinterpret the Bank's history as he explores his own subjectivity and that of his colleagues, through the way he presents various

alternative options for growth for the consideration of the executive. There are three aspects of Campbell's account of how he goes about deciding what to do that show this search for a way forward (see 5.5.5).

The first is that he engages his executive colleagues in making strategic choices, rather than deciding alone and presenting his decision. He seeks out his colleagues to share the decision process with them, and they expect him to do this. His colleagues are managers who each have responsibility for a BoS Division, and collectively share responsibility for the Bank's overall development. Campbell takes it for granted that while the developmental choices open to the International Division is formally his, practically those choices are inter subjectively shared with his colleagues. As Campbell says:

> one of the jobs that I see I've got to do over the coming months is to try and force my senior colleagues to ... recognise that the canvas they've given me to paint on is far too big, and unless I get some consensus and closer direction ... we're going to be stumbling around all over the place for a long time .... I'm not just saying 'hey guys tell me what to do. I'm saying here are the objectives you've given me. Here are a number of different ways of going about it'.

In looking for consensus Campbell is seeking to shape the subjectivity of his colleagues, and at the same time inform his own subjectivity. From a vast number of strategic possibilities, too big for Campbell to contemplate, he organises information around him (events, perceived constraints and opportunities, market data, objectives) into a few strategic options by applying meaning to them in light of his personal experience, what he thinks his colleagues might expect, and what they might reject. When he formally presents his subjective reality as a proposal, it is a proposal that will already have been shaped through informal discussions with his peers. Their inter subjective reality will be further shaped through formal discussion of the proposal, a discussion that is guided by what Campbell calls the "prejudices and subliminal strategies" of his colleagues, as well as those of Campbell himself.

The second aspect of Campbell's account that shows him struggling for a meaningful and legitimate way forward involves constructing experience - his and his peers - through continual probing and sense making on his part, and talking with others about what they see and are doing. Campbell is groping and testing for the boundaries of socially acceptable and

unacceptable strategy; sensing "where the constraints and barriers that make action 'impossible' and [looking] for self imposed restrictions on the options that [his colleagues] consider and exercise when confronted with problems" (Weick, 1979: 150); at other times building into proposals his anticipation of his peers reactions to his suggestions; being guided by spoken and unspoken rules of right and wrong ways for the Bank to behave internally and compete externally. Campbell reflects on his experience of finding an acceptable way ahead, and says that

> in a sense I'm already going through the process of - almost without them realising it, shall we say - of forcing my Bank Chief Executive and the Group Chief Executive to focus more on these issues by throwing up specific opportunities ... of the 'opportunistic' type.

Campbell referred to a proposal that he put forward recently. Through contacts in merchant banking, he came across the option of buying a continental European bank. In presenting this as an acquisition option for the International Division, Campbell learned a little more about where the boundaries of acceptable strategy lay when the executive came back and said "we don't like this for the following five reasons". He finds probing the boundaries of accepted strategy "very effective in flushing out ... subliminal strategies". However for his part, he is also increasingly internalising those boundaries, making them part of his own subjectivity, as his anticipation of his peers' reaction shows: "I will be putting up next week this asset swap idea, and I know already in a sense what ...".

The third aspect is that through the process of deciding what to do Campbell is constructing a heuristic to help him make sense of the boundaries. In the words of Garfinkel (1967) Campbell is 'accomplishing' a subjective reality by creating new interpretations and expressions of possible future realities for the International Division's, through applying meaning to his colleagues' preferences discussed above, and his own tacit knowledge and experience. He intends to share this heuristic with his colleagues, as a way of making the Bank's written guidelines for acquisition more explicit, in the belief that this will reduce the ambiguity of those guide lines, and thereby make decision making more efficient.

8.4.3 The 'here and now'

Practitioners' attention is dominated by tasks in the 'here and now', while some spatially and temporally remote sources of experience are of less pragmatic interest and urgency (Berger and Luckmann, 1966: 36). Managers spend most of their time avoiding uncertainty, attending to operational detail, sequential conflict reduction, and often being reactive to events (Cyert and March, 1992; Lindblom, 1959).

Timeplex's managers routinely criticise themselves for not taking the time to meet and discuss the company's direction. They feel that strategy meetings are desirable, but in the face of the daily pressures of dealing with customers, both externally and internally, it was a luxury that had to wait. There was the additional problem of not being familiar with what was involved in such meetings, the procedures and content, and whether it would be a legitimate use of their time. They had enough to do without adding a talking shop that might not enhance their existing individual performance or status. The absence of a forum and supportive culture for airing strategy topics seems to facilitate the existing status quo of internal competition and distrust.

OBS academics are under continual pressure to produce research, because the Business School's research funding each year depends on the volume of publications. Most academics within Higher Education fear that quality will suffer as a result of this emphasis on quantity. Nevertheless academics recognise that they must maintain their standing within their institution and its aspirations for future research performance ratings, and this pressure drives them to publish more. At the same time, the OBS's research reputation over the long term, and its ability to attract superior research staff and funds will depend on the quality more than quantity of its research output.

The overriding attention to the 'day to day' might imply that practitioners hide behind the unproblematic, fearing to venture beyond routine, or taking action in some mechanistic way. Routine is critical because it gives order, without which BoS, OBS, and Timeplex would cease to exist. The Bank's relentless pursuit of efficiency and cost reduction is more than

simply rule following. It may be ritualised but it is not mechanical. It has always been important to both the Bank and its customers. The Bank's focus reflects accumulated tacit and codified knowledge about achieving efficiency in banking, and how to compete in an ordered and regulated environment. Driven by unanticipated competitive pressures from English banks that burst into its cosy 'here and now' world, yet still consistent with its concern for good stewardship, the Bank has played a significant role in the early development of remote banking as a distinct sector (see 5.6.1). The Bank's staff believe that its customers expect it to behave in a financially accountable way, and actively works at fulfilling and protecting these perceived expectations.

The demands of 'the immediate' might suggest that managers are preoccupied with exploiting existing capabilities, and are unlikely to divert time and effort to developing new capabilities for future growth, which in any case may be difficult to create. There is a further drain on managerial effort where new people have to be trained (Penrose, 1959), and guided so that they learn and accept unequivocally the Bank's way of doing things, including developing a strong respect for its long history. In short the socialisation of new staff is an uncertain process, expensive, and offers only limited return in the short term. The evidence does not support this view however.

While practitioners may feel buffeted by the demands of the immediate, they do recognise the interdependence between the 'here and now' and their more remote aspirations. All three organisations have routinised ways of developing new capabilities into everyday strategy practice. Customers, competitors, and regulators have for some time been assessing the legitimacy of suppliers' claims to performance standards, for example by measuring their quality procedures, commitment to personnel development, and social responsibility contributions. Part of the competitive performance claims of most suppliers consists of displaying certificates of achievement in many of these areas of remote experience, including ISO 9000, HEFC (quality), Investors In People, and the Institute of Banking professional training.

8.4.4 Heritage and the ordering of social reality

Strategy practice then is the practical articulation of an organisation's social reality. It is an ordered reality, and one that is not limited to the here and now but informed by more remote aspirations and the organisation's heritage. Strategy practice is ordered to the extent that artefacts and taken-for-granted practices are arranged in meaningful patterns. In long established organisations these practices pre-date most present practitioners.

Until the 1970s, the accepted way of British banks enlarging their business was to open more branches. It was accepted practice to run cheque accounts without paying interest to the holder. There was a sense in which a bank's hierarchy was paternalistic, starting with the 'Governor' at the top, extending down to its children, the customers. The Bank Manager (always imagined to be a middle aged man), was held in high esteem, having power over ordinary lives. The Bank Manager was probably a member of the local Rotary Club, and might have a seat on the Boards of local companies. Individuals gave their loyalty to a particular bank, depositing their savings there, and in return for their association with that bank received a sense of financial security. The banks' role as provider of financial security required having large reserves, and showing prudent behaviour, particularly in its investment attitude. Going back a little further, say thirty years ago, individuals would consider their status as elevated if they had a bank account.

In this example the Bank of Scotland's practices are intimately tied up with beliefs about its role in society, about the natural order of things, and shared by customers and bankers alike. In the following example, it is possible to see how beliefs and assumptions about how the world should be, produces that world.

Until the 1970s the British education system reflected the broad class divisions in British society, less so in Scotland. Education practice reflected these divisions, from primary to Higher Education. To put it crudely, if you had to work for a living, and had the 'right' background, then a degree (preferably a good one) from Oxbridge would get you into The City where a lot of money could be made without getting dirty. If you had to go to a

polytechnic, then something more lowly would be on offer, like engineering. A succession of Labour governments during the 1960s and 1970s saw a different social order, a vision of the world where Grammar Schools had no place, and where anyone could follow a degree course, regardless of income and background.

The Open University was founded in 1969, on the political and ideological principle of providing open access and equal opportunity to higher education, for everyone in Britain. Potential students did not need previous educational qualifications, nor the ability to pay, nor the need to sacrifice the day job. You only had to be over 21 years old. The Open University is an innovation and a realisation of that alternative social reality.

The two models of Higher Education have co-existed for the last 25 years. Co-existence is the right adjective because, until about 1994 they were funded differently, the student population of the Open University tends to be much older or 'mature students', and the methods of teaching are very different with one model relying on face to face forums and the other relying on packaged programmes delivered remotely. Students moving between traditional universities have their academic credits routinely evaluated by the receiving institution, but for many years traditional institutions viewed the value of Open University academic credits with scepticism.

The current (Conservative) Government is reforming education, in particular the introduction of a national curriculum for primary and secondary education, and is attempting to make Higher Education institutions more accountable. It is not impossible to imagine the government developing a model of Higher Education where universities are required to deliver standardised courses like a national curriculum. In other words the extension of The Open University model to the whole of Higher Education.

8.4.5 Politics

Power is a key force in the construction of social relationships (Knights and Morgan, 1990) and of the social realities from which individuals and groups draw meaning and identity

(Knights and Murray, 1992). Power may come from formal authority, control of capabilities, alliances and informal networks, control over decision processes, gender, boundary management, and other sources (Morgan, 1986). The observation that organisational strategy is a political process, where for example those with greater power dominate others, is common place. Knights and Morgan (1990) suggest that actors construct internal social relations through 'discourse and practice', from which everyone derives meaning and identity. Most Timeplex managers and engineers unashamedly devote much time and effort to thinking up strategies and taking action that will enhance their status, and routinely take soundings to identify potential opportunities and personal threats. One new employee wondered why managers always seemed to be in meetings in each other's offices; meetings that rarely produced an output that was broadcast to others. It is unlikely that they met to discuss organisational strategy since by their own admission strategy was something they should be discussing but were not (see 4.5.1).

In a longitudinal study of the management of IT in an insurance company, Knights and Murray show that while practitioners appeal to the needs of markets and the capabilities of technology in their strategy arguments, such 'externalities' and negotiated 'internalities' are rather constructed "by the power and practices of key personnel within the organisation" (1992: 225). Nevertheless, practitioners do see constructed externalities as real, albeit shrouded in uncertainty, and beyond their control. Internal decisions and preferred options are mediated by their subjectivity, not hard-wired to environmental change; practitioners reduce the ambiguity of externalities by applying structure and meaning to them. In their study of IT within the financial services sector, Fincham *et. al.* concluded that externalities are interpreted according to "the distribution of knowledge and the aspirations and self-images of particular groups [within the organisation]" (1994: 300).

The constructive and interpretive process is further complicated by the organisation's division of labour, vertically and horizontally. Sales and Marketing, Customer Services, and Information Services construct competing realities, based on different assumptions (Knights and Murray, 1992). As Fincham *et. al.* note, many top-down decisions are based on bottom-

up information gatekeepers, where for example "top managers may be free to 'choose' technology, but their choice will be dependent on expert advisers and subject to political influence and control by such groups" (1994: 10). Who then is constructing whose reality?

These findings are supported by evidence in all three organisations studied in this research. There is the conflict between Timeplex's Customer Support Division and the Sales Division over control of Customer Support (see 4.5.5). One side claims that customers needs are best met by existing arrangements, and the other argues that a fundamental change in Timeplex's organisation is essential in order to better meet those needs. This conflict can be seen as "an attempt to legitimise specific divisional and career interests by couching them in projects which are claimed to be coincident with the corporate objectives" (Knights and Morgan, 1992: 218).

Some of the Bank of Scotland's Operating Divisions want control of IT, while not surprisingly its Management Services Division (MSD) defends its role as provider of centralised IT resources (see 5.3.3). The distribution of knowledge in the Open Business School was so wide that some individuals connected to one committee may not know the findings of another (see 6.6.5). The flows of power in this environment were based on a mixture of social networks and local influence, in contrast with the concentration of power at senior management level in the Bank of Scotland or in Knights and Murray's (1992) insurance company.

8.4.6 Order and disorder

The practice of strategy is both ordered and muddled at the same time, yet is still a consciously and collectively directed process. We have seen that practitioners live a world ordered by their shared meanings and experiences. On the other hand, we have also seen that politics is endemic in everyday strategy practice, whether through individuals and interest groups vying with each other for control of relationships and resources, or as an unavoidable consequence of distributed expertise and decision making. In addition, individuals and

groups within the organisation have a differentiated understanding of their organisation's strategy in practice, and differing views on how the organisation should compete.

Timeplex's corporate leaders in the USA sought to ensure a successful implementation of their rejuvenation of the company by keeping the whole change process under tight control, through a very ordered unfolding of its implementation (see 4.5.6). They believed that the less staff knew the less they would worry, and the less disruption there would be generally. It is a vision of corporate leaders assuming that they enjoy total control, moving dumb pieces around, or out of, the company.

Probably due to the tight control of information, the Customer Support group in the UK and the UK Sales leadership had different views about what these changes were meant to achieve, as well as how the changes were to be effected. Sales saw the reorganisation as internal to Customer Support, while Customer Support saw themselves as the first in a company wide reorganisation (see 4.5.7). Apart from this differentiated understanding of what Timeplex's rejuvenation strategy was, as noted above the UK Sales leadership's vision for Timeplex was in conflict with that of Customer Support (8.4.5).

Customer Support and Sales live within a differentiated understanding of Timeplex's strategy in practice, and of what Timeplex's strategy should be. This differentiation has existed for many years, pre-dating the issues surrounding the particular re-organisation mentioned. Their differences are ingrained and sustained by their separated structures within Timeplex. Knights'[2] observation of strategy seems very pertinent:

> the exercise of strategic power [by the organisation's leadership] is not a monolith, and the relations in which it is exercised are not necessarily co-ordinated and coherent, one with another. There are gaps, contradictions, and discontinuities, and these can be exploited by members of an organization.... [Equally] subjectivity is not a unified and an integrated whole; individuals are very often as divided within themselves as they are from one another. Their subjectivity is composed of a complex web of complementary and conflicting as well as coherent and inconsistent meanings, purposes and identities, all of which generate as much tension as stability (1992: 529).

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[2] Knights was criticising the positivist epistemology supporting management studies for treating knowledge as inherently certain and knowable, and for ignoring the political processes that shape strategy.

While the differentiated exercise of power and differentiated subjectivity contributes significantly to the disorder of strategy practice, such disorder is also an important spur to internal competition, creativity and innovation. For example, there is also a differentiated understanding of what working for Timeplex means, between the UK senior managers and their USA leaders. UK managers of varying levels criticise their high salaried leaders for being 'in the company for themselves, for what they can get out of it', and hold the view that a large proportion of that leadership is of poor quality. This critical assessment of Timeplex's leaders contributed to the feeling among UK engineers and managers that if you are good (i.e. entrepreneurial) you can go places in this company; a belief that there is a serious weakness in Timeplex's leadership that anyone with some talent and commitment could remedy.

The bond of order and disorder in strategy practice is inherent in Timeplex's social reality. Inspite of this the company has not disintegrated, internal differentiation does not get in the way of a shared understanding of their reality, nor does it confuse the sense of a collectively directed process. However, the scope for differentiated subjective interpretation and expression of the organisation's social reality goes some way toward explaining why Mintzberg's (1978) unintended strategies emerge while intended ones are often unrealised.

8.4.7 Anomalies

Practitioners try to make sense of unexpected and problematic (i.e. anomalous) experiences in terms of their recipe knowledge or paradigm (Berger and Luckmann, 1966: 38; Kuhn, 1970: 52). In the search for effective solutions, individual organisations are likely to interpret and express recipes in novel ways. Indeed, the way that anomalies are handled varies among the three organisations. A sense of what these different strategies might be is suggested by Bloor's description of knowledge creation in mathematics. He suggests that "in the search for plausible explanations, [people] are likely to employ different ways of dealing with anomalies: opportunism, exclusion, accommodation, indifference" (1983: 139). Practitioners do not choose consciously in some detached way, whether to accommodate or behave

indifferently to anomalies; they do not leave their everyday reality and its recipes in their approach to solving problems. Chapter 10 characterises and contrasts how practitioners within different social realities deal with everyday challenges and opportunities.

While the environment is an obvious source of the unexpected, many anomalies can emerge from within. For example 'bottlenecks' (Rosenberg, 1982) may emerge in one area as a result of efficiency improvements elsewhere. Hunting out and removing bottlenecks is routine to the Bank, and is part of its recipe of continuous efficiency improvement. Relative to Timeplex, the Bank's division of labour is much more extensive. Each division and sub-division is equipped with a myriad of heuristics, routines and recipes for dealing with possible situations. Operating in a social reality where order transcends formal organisational boundaries gives rise to an expectation that anomalies can be anticipated. The Card Services Division's 300 'standard letters' is an example of the Bank's arsenal of ways for dealing with anomalies (see 5.3.2). Occasionally anomalies cannot be anticipated, but can be a powerful source of innovation through forcing the creation of new capabilities, as evidenced by the Bank's Home Banking innovation in retaliation to the English banks' unanticipated incursion.

In suggesting that anomalies may come from outside or inside there is an inference that anomalies are independent entities, disconnected from the social construction of reality. More than simply emerging from outside or inside, anomalies are an inherent feature of an industry's 'thought collective' and its attendant 'thought style' (Fleck L., 1979), whether its banking, telecommunications services, or distance learning. Anomalies come with the organisation's socio-economic and technological relations and strategy practice, contributing to the provisional nature of those relations and practices.

As an inherent feature of an organisation's social reality, anomalies exist through: the organisation's distinctive heritage; the differentiated and changing expectations among stakeholder groups (for example among competitors and customers); the versatility of an organisation's capabilities (further examined in 9.2); and the heterogeneity of inter organisational resources and capabilities, among competitors, collaborators, customers, and

regulators (2.6.4). This dynamic character of anomalies underlines the fragility of the socially constructed networks that constitute an organisation's competitive relations.

We get a glimpse of this dynamic with the following example from the OBS. Over the last ten years the Open University has experienced an unrelenting generation of anomalous situations and events brought about by: changing students' expectations; growing internal dissatisfaction from OBS staff with the Open University's administrative machinery;[3] the recommendations and experience of an HEFC quality assessment exercise during the more recent past, and a growing internally felt sense that there was a danger of technological change leaving the University behind. The on-going generation of anomalies are in continual tension with the Open University's sedimented practices; practices that are legitimised by the broad respect for its accomplishments to date. Indeed, over the years the Open University has developed very robust administrative processes for dealing with the variety of demands made of it, from students, competitors, regulators, and staff, and its teaching material has been incorporated into the courses of many well respected universities and other educational establishments.

During the last three to four years the University has been stretching and straining its existing capabilities and creating new ones, attempting to accommodate new situations and events as yet to emerge, including: the introduction of a comprehensive Information System to replace existing and incompatible systems; the opening up of the student conferencing system (CoSy) to all students, sensitive to the rapidly expanding development of the internet; and the implementation of INSTILL (Integrating New Systems and Technologies in Life-long Learning), the University's initiative to create new capabilities and give it competitive advantage for the coming millennium (see 6.6.5).[4]

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[3] In meeting changing customer expectations and OBS requirements the Open University has had to develop new capabilities in administration, particularly in work organisation practices and information systems: the facility for students to pay for courses by credit card, including staged payments; more flexibility in the eligibility of students for fee refunds; and more customer oriented behaviour (rather than student oriented) from the University's student support machinery. In addition, as the OBS has sought to create new linkages with non UK markets, all new courses are being written to reflect that wider environment, through for example, European case studies and practical examples. Local tutorial facilities and tutors fluent in other European languages, have also become necessary.

[4] The Open University has budgeted £10M and recruited 33 new academic staff to implement INSTILL.

Anomalies then are social constructs. In addition to being a feature of a constructed environment anomalies are also inherent to strategy practice, and are typically the product of practice. For example, Timeplex Customer Support engineers and Salespeople are engaged in the single-minded pursuit of new business, and it is taken for granted that a significant customer support machinery is needed to make new installations work, fixing bugs and other problems that emerge as a result of the initial installation design, or during installation. This technical support machinery is a direct result of the overriding socio-cognitive commitment within Timeplex to 'sales at any cost'. Problem generation is built into the company's strategy practice.[5] Further, while the accounting philosophy of Timeplex regards this large technical support machinery as a necessary overhead, most managers and engineers see it as an additional resource for generating additional business through the sale of sophisticated customer support contracts. As Knights and Morgan says "strategy as a discourse ... also constitutes the problems which it then claims to have an exclusive expertise in solving" (1991: 267).

8.4.8 Applying patterns

Practitioners also routinely apply patterns to their relationships with customers, competitors, regulators, and other potential stakeholders. Professional market research constructs market segments; they apply patterns on the premise that groups of people share certain characteristics, or hold similar views. Plans and activities are built on the strength of those 'resemblances' (Berger and Luckmann, 1966). Thus the everyday practice of strategy is ordered not only by shared meaning, recipes and routines, but also by patterns. Ascribed patterns develop over time, sometimes gradually, at other times radically.

Banking was for centuries a much more homogeneous industry than the last decade, insulated from insurance and Building Societies. Regulatory interventions in the form of various

[5] Fundamentally different ways of competing are not recognised as valid. For example, selling only robust product designs, taking greater care over customer requirements in designing networks, including installation time scales and costs. In effect the concept of designing quality in at the beginning rather than fitting it at the end, something that Toyota is regarded as having developed into a fine art, and sets it apart from its competitors. The development of such a concept would reduce sales volume, but would also reduce the need for technical fixes that result from the current sales philosophy.

Financial Services Acts during the 1980s, and constant lobbying of the British government by consumer groups has produced a shake up of the traditional patterns. New competitive recipes are emerging in anticipation of new consumer patterns and in response to patterns continually being experienced by organisations, based on changing relationships with customers, and new competitors. For example, as a result of government encouragement for individual pension schemes, a number of insurance companies and banks introduced new products during the 1980s that subsequently had to be modified or withdrawn. These new products were aimed at particular high income groups, whose needs competitors defined in terms of exploiting an ambiguity in the tax laws. Recognising that this could mean substantial lost revenue, the Inland Revenue subsequently and successfully lobbied the government to close a number of 'loop holes' in the tax laws.

Perhaps because of a shared internal commitment that is also strong, organisations are often not aware that they are in turn being 'made sense of' or apprehended in terms of expectations and perceptions about their capabilities and social relations. For example, customers and stakeholders evaluate telecommunication network systems providers, like Timeplex, against expectations of what a good provider should be like, expectations that have come about through their own experiential learning and socio-economic relations with providers, other customers, and regulators. Critically, many organisations routinely fail to recognise the implications of others applying patterns to their behaviour. Some organisations fail to recognise that they are slowly painting themselves out of the landscape, even those that constitute a major part of the landscape, like IBM. Janis describes many organisations in this situation as suffering from 'groupthink', a malady where there is a collective "illusion of invulnerability, [and] self-censorship of deviations from the apparent group consensus". Looking on the bright side, many innovations would not materialise without groupthink (1972: 197).

There seem to be three mechanisms whereby the enacted external world intervenes in the shared commitments of the organisation's practitioners to their strategy-in-practice. One involves the periodic global soundings that organisations take. For example, Timeplex, BoS,

and OBS have all commissioned research during the last three years to find out what various parts of the outside world think of them. The weakness of this mechanism is that the organisation may be asking the wrong questions, potentially missing a lot of valuable feedback. The second is at a more localised level, for example the dialogue between Salesperson and Buyer. Thirdly, those stakeholders constituting the organisation's competitive world may dramatically remodel that organisation's competitive performance, for example when customers stop buying products and services from the organisation, either suddenly or slowly.

When the President of one of Timeplex's customers, in a state of desperation, telephoned the President of Timeplex, demanding financial compensation and the removal of Timeplex's products, he was exercising his capacity to redefine his company's social relations with Timeplex (see 4.5.3). This example also suggests that "the key distinction is not between 'inside' and 'outside' organisations, or between 'subjective' and 'objective' relationships, but between the networks of interaction which are more or less amenable to local negotiation by players" (Fincham *et al.*, 1994: 13). Drawing on their study of 'sectoral influences on strategy' in financial services they suggest that individuals, groups, and organisations have more or less scope for modifying their own behaviour, or influencing those with whom they interact. One constraint on such scope is the extent to which behaviour is routinised, both within the organisation and within the sector. Such routine behaviour then acts as an impersonal or objective constraint.

8.4.9 Constructing boundaries

The internal/external distinction of organisations and their environments is a convention that practitioners use to organise their experiences. The distinction is itself a social construction, a product of social relations among practitioners. The building and maintenance of social networks based on professional training, membership of industry technical standards committees, knowledge flows between organisations and academia, joint ventures and alliances, all undermine any boundary building and further reinforce the socially constructed

nature of an organisation's boundaries. Many boundaries exist through political and economic definition; boundaries that often change through a change in government or national trading relations. For example there are attempts to regulate the boundaries between terrestrial and satellite broadcast, and what kinds of services cable network operators may legally engage in. Technological change is also shaping and being shaped by potential stakeholders redefining industry boundaries, for example 'edutainment' and 'multimedia'. Further evidence of the enacted nature of boundaries can be seen when contemporaries within and around, say, the IT industry attempt to define it.

The Bank of Scotland's IT staff probably have more allegiance to their profession than to the Bank, especially while there is a general shortage of IT capabilities and banks have to compete for access to that pool of capabilities. The mobility of staff within Timeplex's environment seems even more exaggerated, with it high turnover of employees. Arguably, while Timeplex and its competitors may be competing for skilled labour, the critical issue is not a general shortage of that labour but an environment where key skills are under continual redefinition, and where all kinds of boundaries are in constant re-definition, such as result from attempts to merge Local Area Network (LAN) and Wide Area Network (WAN) technologies.

The general tendency to recruit people with 'relevant industrial experience' is based on the existence of industry wide strategies and practices (Huff, 1982; Grinyer and Spender, 1979) and further challenges the substance of a distinction between the organisation and its 'external' environment. The Institute of Banking qualifications and banking regulations develop common knowledge, capabilities, and practices among banks, further helping to break-down individuality between banks. Individual mobility may to a significant degree be motivated by the scope to exercise power and "the pursuit of identity" (Knights and Morgan, 1992: 222), in which case formal organisational boundaries are incidental. Managers and technicians of Timeplex seem to take a utilitarian approach to employment opportunities, so that Timeplex is as good a place to practice their craft as any another company. Their peers in the Bank and the Business School on the other hand seem more attached to the norms and

values of their organisation. Nevertheless, in all cases career opportunities and prestige (as well as the uncertainty of success or failure) extends beyond the formal organisational boundary.

As noted above, organisational boundaries are also shaped through collaborative ventures, and localised social networks. The Bank's collaboration with its customer NCR to develop the next generation of cash machines, is for the Bank an innovation in management practice. Since the nine month experiment in 1993 was regarded as a success, the form of that particular venture will become increasingly routinised as both parties try to work out some commonly acceptable routines and heuristics, and develop a common sense of where the boundaries of co-operation lie. For example, the Bank's representative may not visit with NCR to another UK bank, but visiting a foreign bank is acceptable. Richardson, the Bank's 'entrepreneurial broker' in this project, noted what an eye opener it was to see NCR's corporate planning process, and how formal it all was compared to his Bank's. He noted that he picked up a few ideas from NCR's planning process that he intends to share with his colleagues in the Bank.

The collaborative learning experience has shown both parties a novel way for them to significantly influence their competitive environment through local social networks. It is an innovation in management practice that both parties recognise as creating scope for considerable competitive advantage.

Talking in terms of 'boundaries' might suggest that the organisation has a hard core that is not socially constructed. This is not the case. Even the Board of Directors is a social construction. Indeed the NCR/BoS collaboration came about because NCR's Chief Executive and his non executive director from BoS discussed the idea.

8.5 CONCLUSIONS

The practice of strategy is socially constructed through socio-economic relations; relations that are distributed spatially and temporally. Practice is a stable pattern of relationships between practitioners, and between the organisation and its competitive environment. This stability comes from: an organisation's heritage; shared meanings; the enacting of an intersubjective reality among practitioners. At the same time the pattern of relationships is provisional due to: political behaviour; distributed expertise and decision making; a differentiated understanding of what the organisation's strategy is and how to go about it; the heterogeneity among organisations in a sector. The practice of strategy is further constituted of a tension between dealing with the immediate and more remote issues, and between order and disorder.

Socially stable patterns also remain more or less provisional because they are constituted of anomalous situations and events. Practitioners deal with anomalies in terms of their recipes, often resulting in the elaboration and creation of new capabilities and yet more anomalies. Chapter 9 explores the role of capabilities and recipes in reinforcing yet at the same time elaborating everyday practice and reality. The stable yet provisional processes that is practice constitutes practitioners' 'taken for granted' reality, their social reality. Indeed, it is this social reality that shapes the practice of strategy, a practice that at the same time reinforces and elaborates a shared reality.

The tensions inherent in the guided yet provisional nature of everyday practice suggests why whole industries may be overturned or fade into obscurity in just a few years, or change only imperceptibly over generations. In exploring how practitioners shape practice there is a suggestion that the everyday reality of each organisation in this study is different. For example in discussing shared meaning the notions of 'stewardship' in BoS and 'individualism' in Timeplex emerged. The extent to which each organisation may be characterised in terms of a different socially constructed reality is systematically examined in chapter 10.

9

Accomplishing social reality: applying capabilities, interpreting technology-practice, imputing strategic intent

9.1 INTRODUCTION

The general introduction to Part III (7.1), noted three assumptions made in the earlier literature review of chapter 2: strategists enjoy more or less control over the content and process of strategy; practitioners interpret a real world with more or less accuracy; knowledge and values can be separated given enough time and previous knowledge. Chapters 7 and 8 argue against the first two assumptions by suggesting that far from being dispassionate overseers of their future, practitioners are bound up with the situations and events they seek to manage. This chapter argues against the third assumption by showing that knowledge is socially conditioned; facts and values are inseparable. This different interpretation of knowledge came about during the fieldwork. There were instances where it was very clear that the reported financial performance of the organisation was socially constructed. Facts were being defined through political negotiation and work organisation preferences, for example a share of the declared profitability of the Customer Support Division, and by extension the whole of Ascom Timeplex, depended on cross charging the Sales Division for any technical support provided (4.4.2). Senior managers of the Open University were struggling to agree on a 'resource flow model', recognising that their choice of model would define the future relative financial performance of Faculties (6.5.3). Practitioners were acutely aware that published results carried implications for their department's or organisation's future prospects.

It became clear that this observation of the subjectivity of knowledge underpinned more generally how practitioners use knowledge in their practice of strategy. In managing innovation practitioners use knowledge to apply and develop capabilities; interpret technology in different and novel ways; define revealed performance and construct its links

with strategic intent. The strategic significance of these three areas is widely accepted: as technological innovation is seen as critical to wealth creation (1.2); capabilities are widely regarded as areas where organisations must invest to remain competitive (introduced in 2.4); strategy teaching stresses the importance of defining clear targets in advance of investment. This chapter explores the roles of these three distinct yet related dimensions of strategy practice in creating social and material reality. Each topic is treated separately to examine its distinctive role.

In assessing the role of capabilities the analysis draws on the socially constructed nature of knowledge, the importance of legitimation and tradability of capabilities, and examines the extent to which the exercise and development of capabilities involves rule following, creativity, and taken for granted knowledge (9.2). Section 9.3 takes a broad interpretation of technology and examines three aspects that contribute to the interpretive flexibility of technology-practice: the indeterminacy of facts and human values; whether technology has a hard core, or is configurable and meaningful only in light of the exigencies of the immediate; the commitment to heritage and practitioners' anticipation of the future. In examining strategic intent section 9.4 considers the degree to which practice is guided by goal seeking or goal setting, and the centrality of heuristics to practice. The extent to which revealed performance is the product of control through strategic intent, or is the result of differentiated assessments and politics, and self-fulfilling processes is also assessed in 9.4. Clearly while these three strategic areas are distinct they have in common the social condition of knowledge. Practitioners and their organisations shape social and material reality through their engagement with applying capabilities, interpreting technology, and imputing strategic intent.

9.2 EXERCISING AND CREATING CAPABILITIES

9.2.1 The rise of firm capabilities at the expense of industry structure

This section shows that practitioners construct their reality through the exercise and creation of capabilities, building on the notion that knowledge is a social construction; that such knowledge exists within and as socio-cognitive structures. While such structures give rise to rules of behaviour, organisational capabilities describe the creative interpretation, expression and unceasing development of those rules of behaviour.[1]

As noted earlier writers on strategy increasingly identify resources and capabilities as central to competitive advantage (resource based theory of the firm), representing a shift away from the 'structure-conduct-performance' traditional theory of the firm as popularised by Porter (1980, 1985) (see 2.4). Teece for example argues that "the production and utilizations of technological and organisational knowledge is a central economic activity" giving managers scope for "some degree of innovative improvement in existing ways of doing things" (1985: 37). Further, Teece *et. al.* (1994) argue that in the dynamics of a competitive environment firms need to be preoccupied with the creation of new capabilities, more than the exploitation of existing ones. Similarly, Hamel and Prahalad (1993) suggest that the strategic concepts of 'fit' and 'resource allocation' are too static, and argue instead for a perspective that stresses 'stretch' and 'leverage' of resources.[2]

While the focus on capabilities is important, it risks ignoring that subjective and objective reality are interlocking processes; one shaping the other in a context of their own making (see 7.1.2). Individual organisational capabilities and industry structure, which includes the

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[1] Many writers on management studies and innovation refer variously to 'skills', 'capabilities', 'competences', 'expertise', and 'know-how'. Any differences are not regarded as critical to this analysis, and so the convention used here will regard these terms as largely interchangeable.

[2] Organisational capabilities is not a homogeneous whole, more a basket of individual capabilities of varying kinds and levels. Dreyfus and Dreyfus (1986) define differing levels of skill acquisition: novice, advanced beginner, competent, proficient, expert. While recognising the possibility of differing levels of capability such distinctions are not directly relevant to the thrust of this analysis. Further, this analysis assumes organisational capabilities to be more than the sum of its individual skills.

heterogeneity of organisations' capabilities, should be regarded as inclusive rather than as alternative views of the competitive dynamic, a view shared by Coombs *et. al.* (1992: 11).[3]

9.2.2 The subjectivity of knowledge

It is generally taken for granted that capabilities involve the application of knowledge. If knowledge is socially constructed then so are capabilities. Knowledge is constructed through socio-cognitive relations rather than acquired as a stock of inherent 'truths' or certainties. For example, in tracing the changing definition over the centuries of syphilis as a recognisable and treatable disease, Fleck L. observed that "the socio-psychological and historical foundation [of syphilis as a carnal scourge] was so strong that it took four centuries before scientific advances in other fields were important enough to establish a definitive distinction among these various diseases" (1979: 3) (see also 7.2.2). From his analysis of the process of development of our knowledge of syphilis Fleck concluded that "cognition is the most socially-conditioned activity of man, and knowledge is the paramount social creation" (1979: 42).

Relatedly Kaufmann (1944) and Garfinkel (1967) suggests that 'facts' about events owe their validity to unstated social rules rather than any ontological characteristics of the event. Again in a study of scientific controversies Collins (1981a, 1981b) noted the 'interpretive flexibility' of scientific knowledge claims. Collins' observation suggests that scientific 'facts' are socio-cognitive commitments rather than any inherent quality of the scientific event. People the world over are currently locked into a controversy about whether BSE (mad cow disease) can or cannot transfer to humans. The British Government's 'facts' say that there is minimal risk and that 'hard evidence' of a link is a prerequisite for action. Consumer groups and other national governments define their 'facts' differently, arguing that proof of no link be the appropriate test for determining whether or not we may safely eat beef.

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[3] Metcalf and Gibbons (1989) and Peteraf (1993) highlight the importance of firm heterogeneity as a source of competitive advantage.

These studies and observations show that knowledge is a socio-cognitive construct, having no ontological status. Organisational or institutional knowledge develops through its unceasing assimilation and legitimation, *within* and *as* socio-cognitive structures. As Berger and Luckmann note,

> knowledge about society is ... a realization [in two senses]. In the sense of apprehending the objectivated social reality, and in the sense of ongoingly producing this reality. For example, in the course of the division of labour a body of knowledge is developed that refers to the particular activities involved. In its linguistic basis, this knowledge is already indispensable to the institutional 'programming' of these economic activities. There will be, say, a vocabulary designating the various modes of hunting, the weapons to be employed, the animals that serve as prey, and so on. There will further be a collection of recipes that must be learnt if one is to hunt correctly *(1966: 84)*.

Berger and Luckmann's example shows the two interdependent strands of knowledge; language, as part of a community's socio-cognitive structure, and capabilities, as the interpretation and expression of institutional knowledge. In the same way we can make sense of the worlds of banking, telecommunications, and higher education. Knowledge in each of these worlds or societies is structured by their own language, of which jargon is one obvious manifestation, and a shared view of 'the best way to compete in this business'.

Knowledge and capabilities are also socially distributed (Schutz, 1964), where different types of knowledge (e.g., tacit, and formal) and capabilities are held by different stakeholders with different expertise and interests (Fleck and Tierney 1991). Campbell, as the new General Manager of BoS International Division has only limited knowledge and experience of, and thereby limited appreciation of, that division's capabilities and heritage. He brings his own experience and expectations, and actively engages his colleagues as a socially distributed resource of knowledge of the Bank's heritage and capabilities, in order to assess the suitability of his strategic options; an assessment informed by his colleagues expectations of things to come. He is not just discussing theoretical and possible futures with them, but also inviting them to commit to firm proposals for action. They are engaged in a process of attributing meaning to the Bank's resources; the ongoing interpretation and expression of capabilities in light of the exigencies of their competitive options, in pursuit of undefined yet anticipated new horizons.

Socio-cognitive structures and knowledge distribution come about through 'practice and discourse' (Knights, 1990). In this process practitioners of all three organisations are engaged in "mutual agreement and mutual misunderstanding, mutual concessions and mutual incitement to obstinacy" (Fleck L., 179: 120). Notable examples include the co-operation *and* conflict between Timeplex's Customer Support Division and Sales Division; the friction and tensions surrounding Thomson and his informal 'Dean's Team' *and* the value of that team to him as he sought to establish the OBS. Even where there appears to be political harmony, knowledge and capabilities are shaped in similar ways as the next example shows.

Through the 'practice and discourse' (Knights, 1990) of strategy Campbell plays an increasingly critical role in the shaping and distribution of knowledge as he learns what his colleagues expect of him, and as he develops his own ideas. The International Division's practitioners' early experiences of financing North Sea oil exploration and dealing with multinationals' requirements have been assimilated over the last twenty years with the Bank's other banking expertise. However, while the "oil bank" label is valuable, Campbell and his peers do not want the International Division's identity and capabilities to be circumscribed by that now narrow label. Indeed to that end the 'International' Division's expertise is broadening - as for example through the TAPS business on behalf of the British Government's DSS (see 8.3).

As a product of human subjectivity and social relations, knowledge and capabilities remain provisional. Practitioners' subjectivity finds expression in the interpretive flexibility of technology and "philosophical, political, economic, and social dimensions [of reality], which are always in some degree of flux" (Knights, 1992: 520). It is this provisional character of knowledge and its expression through application that gives an organisation its distinctive capabilities. This is not to say that the social nature of knowledge makes it somehow imaginary and thereby worthless, or that its provisional quality makes it unreliable as a basis for action. Rather we need to remain critical and reflexive about all 'truth' claims (Bloor, 1976), such as those claims surrounding management studies and practice. Knowledge is sufficiently stable to lend legitimacy to capabilities, in the form of social and economic

value, as evidenced by companies that develop reputations for particular capabilities. Knowledge is not trapped in our subjectivity; our objectified reality and our capabilities are our evidence of the substantive quality of knowledge. For example, Timeplex engineers do come together, design and install telecommunication networks that perform customer identifiable functions, and both parties may measure the performance of such networks against agreed criteria, although without necessarily agreeing on the interpretation of performance results.

The never ending assimilation of knowledge *within* and *as* socio-cognitive structures gives structure and meaning to both our individual and collective biographies. Socio-cognitive structures are not closed systems of interlocking artefacts of knowledge, orderly arranged; there are also contradictions, discontinuities, human values and assumptions. However open and incomplete these socio-cognitive structures, they nevertheless provide direction for both present and future action. They guide our interpretation and expression of what constitutes appropriate knowledge, capabilities, practices, and "which directions appear most promising, [who] should be selected for prominent positions and [who] should be consigned to oblivion" (Fleck L., 1979: 120). Academics joining the Open Business School do not go through any formal induction or training in 'the OBS way of teaching', and some of them are not familiar with distance learning. Indeed according to Henderson, Deputy Director of the OBS, some new academics are very poor at writing distance learning material. Nevertheless Henderson feels that the OU and OBS have a distinctive teaching style; a style that academics learn through 'osmosis', working with more experienced writers, and being curious about the way OBS teaching works (see 6.6.2).

Schutz's description of recipe knowledge captures much of the biographical and taken for granted character of knowledge. Moreover, his notion of 'recipes' show the indeterminacy, diversity, and subjectivity of knowledge that Campbell of BoS and Asch of OBS, along with their colleagues, operate within as they concurrently discuss and take action in developing their organisations. Although Schutz was writing about the individual's everyday practice, his observation seems equally pertinent to collective strategy practice:

> [recipe knowledge comes] from heritage and education, from the manifold influences of tradition, habits and previous reflection, [and] built up [from one's] store of experiences. It embraces the most heterogeneous kinds of knowledge in a very incoherent and confused state. Clear and distinct experiences are intermingled with vague conjectures; suppositions and prejudices cross well-proven evidences; motives, means and ends, as well as causes and effects, are strung together without clear understanding of their real connections. There are everywhere gaps, intermissions, discontinuities. Apparently there is a kind of organization by habits, rules, and principles which we regularly apply with success. But the origin of our habits is almost beyond our control; the rules we apply are rules of thumb and their validity has never been verified *(Schutz, 1964: 72)*.

It cannot be over stressed that while Campbell talks about exposing his colleagues' "prejudices and subliminal strategies" (8.4.2) he is not doing so as an outsider. He shares many of their professional prejudices and experiences, and has some of his own. Recipe knowledge is distributed among managers, both as a vocabulary and as the exercise and creation of taken for granted knowledge about what constitutes good banking practice.

9.2.3 Socio-economic legitimation of knowledge and capabilities

Fleck L. (1979) argues that knowledge acquires its status by being 'useful' to a scientific community. Similarly, Barnes' (1974) assessment of scientific practice and the development of science, highlights the role of social institutions in validating and rewarding scientific knowledge claims. Mulkay gives the example where,

> Pasteur's interpretation of fermentation came to be widely accepted, ... not due simply to Pasteur's experimental skill or to the validity of his explanation. It was also brought about by the influence of Pasteur's growing reputation by the sponsorship of eminent academicians, and by the vigour with which Pasteur undertook his campaign of persuasion *(1972: 13)*.

These observations apply equally to the validation of capabilities in the communities of banking, telecommunication services, and higher education. The Bank of Scotland's successes in oil and gas financing was due in part to the oil industry recognising and acknowledging BoS's expertise, eventually crediting it as the first 'oil bank' (see 8.3.1). Again, Ascom, Timeplex's parent recognises the importance of legitimation, and so seeks to "reinforce the group's reputation" in developing telecommunication networks by "continuing

to invest a substantial proportion of its turnover in research and development" *(Ascom: A Company Profile).*

During the early years of both BoS's International Division and the OBS they drew their credibility from their relationship with the parent organisation. It is an indication of the value of this credibility that although the OBS leadership often considered using a name that distanced itself from the parent Open University, the general consensus among its staff remains that there is more to be gained by exploiting the link with the parent. Indeed any equivocation on the value of the relationship seems to have been swept aside recently. In 1995 OBS reinforced its belief in the value of that relationship by renaming itself as the 'Open University Business School' (OUBS), in preference to Open Business School. Furthermore, like Pasteur, Thomson the OBS's first Dean exploited his and the Open University's reputation to the full in his campaign to "locate the OBS institutionally", according to one member of the Open University (see 6.2.2).

Without legitimation organisational capabilities would perish, and organisations have to work hard at maintaining them. Through Timeplex's previous owner's (UNISYS) policy of minimal R&D investment during the early 1980s Timeplex's expertise gradually deteriorated. Subsequently potential customers and competitors increasingly regarded Timeplex's products as "steam driven", a label that Timeplex is still fighting to shake off, despite significant investment since the late 1980s by the new owners Ascom.

9.2.4 Trading capabilities

As noted earlier knowledge and capabilities exist within and as socio-cognitive structures. As Fleck and Tierney (1991) note, these structures are also differentiated political structures, investing capabilities not just with social value but also economic value. Knowledge and capabilities derive much of their legitimacy and usefulness by being tradable between the individual and the organisation, and between the organisation and other institutions that share its experiences and anticipations.

Timeplex along with its competitors take for granted the high turnover of staff. As Fincham *et. al.* observed in their study of the "tradability" of expertise in the financial services sector, "if skilled practitioners know they can sell their expertise to another organisation, this gives them a power base within their immediate places of work" (1994: 241). However, career opportunities can be a double edged sword, because for Timeplex's executive it also provides support for their 'hire and fire' philosophy since there is a ready supply of career opportunists in and around the industry. In contrast to Timeplex, the OBS leadership see a different problem: how to increase the turnover of its academic staff, and get some 'new blood' into the Business School.

Timeplex's taken for granted practice of acquiring capabilities through market transactions more than internal development is not confined to employment practices. Strategy practice through market transactions (Williamson, 1975) rather than hierarchical control is the taken for granted way of operating for Timeplex generally. Most of Timeplex UK's personnel, administration, and accounting functions rely on contract labour and agencies. Even its core activities of Sales and Customer Support depends on a proportion of third party arrangements (see 4.3.3). In contrast the BoS makes very little use of market transactions, preferring to grow its own capabilities. There is no question of its Management Services Division being put into the market to compete for the Bank's services. It is regarded as a strategic asset, and a source of many of the Bank's capabilities.

The Business School's teaching philosophy relies heavily on the quality of its written material and on the competences of part-time tutors. The relationship with part-time tutors is a mix of market transaction and hierarchy. Part-time tutors do not have the same employment terms and conditions as full-time staff. Part-time tutors enter contracts to tutor specific courses for particular student groups. Furthermore, managerial control over part-time tutors is devolved to regional offices, where the relationship is more akin to dealing with a network of voluntary workers. Part-time tutors give up a lot of their time to support students: being available by telephone to give advice and encouragement, attending regional training days, pursuing problems on behalf of students.

Strategy in practice is not so much the result of detached *a priori* periodic economic valuation of market transactions versus managerial control. Particular practices exist because practitioners believe in them for a mixture of reasons, some economic others political. Practitioners may believe for example that an in house IT division is strategic and above such an evaluation. In contrast the cost of managing a hierarchy was often used by Timeplex's executive to justify making redundancies. Indeed, as noted above strategy practice in Timeplex seems to be based on an unstated preference for market transactions, but which is always under slow erosion through incremental employment commitments by semi-autonomous managers. From time to time Timeplex's executives would interpret their unsatisfactory financial performance as being due to an over commitment to hierarchy, remedying such over commitments by redundancies and reorganisation.

9.2.5 Guided practice, creativity, and taken for granted knowledge

The extent to which practitioners construct or accomplish reality through capabilities can be further explored by examining the roles of rule following, creativity, and taken for knowledge.

Guided practice

Individual biographies and those of communities, are structured by a number of orienting and organising metaphors including: 'recipes' (Schutz, 1964), 'paradigms' (Kuhn, 1970), 'thought styles' (Fleck, 1979), 'norms and values', (Parsons, 1937), 'decision rules' (Garfinkel, 1967). While these metaphors are loose and held together by ambiguities, they help individuals and groups to make sense of their separate and collective biographies. Practitioners of BoS, Timeplex, and OBS draw both their individual and collective sense of worth and the meaning and value they attach to their capabilities (i.e. their identities) from the meaning they invest in these metaphors.

Implicit in these metaphors is the sense that everyday action is rule governed. Barnes following Kuhn (1970) for example sees normal scientific practice as "concretely organised about a number of exemplary models of procedure" (1974: 86). He regards rule governed practice as non reflective action, behaviour that is so ingrained that it ceases to be problematic for the practitioner, and "comes naturally" (Barnes, 1974: 86). It is within this framework that he sees capabilities as unfolding; as "a number of routines, of acting and thinking, which are capable of being applied in a limitless number of ways, depending upon circumstances and how these circumstances are perceived" (Barnes, 1974: 84). This view of capabilities as guided practice is widespread among writers on innovation and management, for example Nelson and Winter's 'heuristics' (1977), and Grinyer and Spender's 'industry recipes' (1979).

In trying to "flush out prejudices and subliminal strategies " of his colleagues (8.4.2), Campbell seems to be in search of Barnes' 'ingrained behaviour'. Interpreting Barnes, Campbell is looking for the Bank's rules that provide a strong guide to future practice. This might imply some kind of programmed behaviour among the executive; a programme that denies the possibility for such rules of behaviour to develop and change through challenges from stakeholders like Campbell. These subliminal strategies are ingrained social preferences, institutionalised social practices built up over decades if not centuries of banking practice, and reinforced through social and economic legitimation. These preferences have emerged and developed through a collective and temporally transmitted belief in what the Bank stands for and how it does business; its 300 year existence is testimony to the social and economic investment by the Bank's staff, past and present, and by the Scottish commercial community.

Creativity and synthesis

Nevertheless, in a competitive economic context capabilities as 'rule following' do not adequately account for innovation, as evidenced by the profound unpredictability of innovation processes and outcomes. Something additional is required. Barnes similarly

recognises rule following as a limiting description of normal science, noting that "routine developments in scientific sub-cultures ... do not suffice to account for the overall pattern of change in science" (1974: 86). He suggests two other processes at work:

> one is the way in which patterns of culture may be combined and reordered by social processes; routines and procedures may be transferred from one sub-culture to another, or differentiation may occur and establish new clusters of normal practice. The other is the transformation of patterns of normal practice, not by rearrangement, but by authentic creative activity *(1974: 86).*

In Barnes' view the former change process is one of "rearrangement" and he seems to regard it as relatively less challenging than the latter process involving "authentic creative activity ... the product of effort and imagination" (1974: 86). In a similar way Schon (1963) in his analysis of the use of metaphor and analogy in innovation processes distinguishes between two metaphors of development, the 'radical function' and the 'conservative' function. In the former bringing an old theory to a new situation transforms both the situation and the old theory, while in the 'conservative function' only the new situation changes, leaving the old theory unchanged.

In developing practice through 'rearrangement' and 'transformation' practitioners seem to go beyond rule following. The value of this observation is not that Barnes and Schon offer categories of change, but that they acknowledge a role for creativity in the development of practice. As the new General Manager of the International Division Campbell is engaging his colleagues in a new situation. In seeking new interpretations and expressions of the Bank's competitive situation they are drawing on their collective and assimilated knowledge of banking practice. Similarly Cecil as Timeplex's Manager of Multinational Programmes routinely seeks out new ways of configuring Timeplex's technologies and capabilities to meet or create new customer applications (see 4.6.2). Weick in writing on the social psychology of organisation regards such a process as both evolutionary and creative:

> evolutionary systems are creative systems, and creativity usually means putting old things into new combinations and new things into old combinations. In either case, novel relations between pairs of things are the essence of creativity *(1979: 253).*

Labelling much of technological or organisational change as either rearrangement or transformational is arbitrary. The process of exercising of capabilities may be guided practice, but the process of interpreting and expressing recipes and routines can also be a creative process. Numerous practitioners at various levels within the three organisations find themselves in the same situation almost routinely. According to Henderson of OBS, academics are driven by curiosity and creativity for its own sake (6.6.2). This is not so different from managers and engineers of Timeplex. Cecil's function is the generation of new income by looking for new situations to apply Timeplex products, which includes conceiving of new configurations of Timeplex's capabilities.

In a competitive context even Barnes' 'rearrangement' demands creativity. Campbell of BoS finds himself in a new 'sub-culture' having moved from Centrebank, and is expected to bring his acquired expertise of developing Centrebank to a new context. Even if we regard the Bank as a homogeneous culture, Campbell's task requires what Barnes calls "establish[ing] new clusters of normal practice" for the International Division, and demands "effort and imagination" (1974: 86). Over the coming years Campbell will both develop his division, and elaborate the meaning of the Bank's conception of international banking.

This example also serves to highlight the difficulty of distinguishing 'rearrangement' and 'incremental' change from 'revolutionary' and 'transformational' change. However we label these changes, we are for the most part talking about degrees of change, usually rational reconstructions, with the form and severity of change being defined subjectively with respect to the observer's location in space and time.

Creativity and guided practice are not divided according to whether change processes are transformational or rearrangement. The inherent ambiguity of the inclusiveness between social reality and practice facilitates the concurrent reinforcement and elaboration of practice and social reality (see 7.2.3). Stewardship at BoS continues to be reinforced yet is also being elaborated over the centuries. Hierarchy remains and has been elaborated by the addition of the Management Board during the last decade, but quill pens have given way to computers and electronic mail. Taken over the whole history of the Bank the concern for stewardship

has not changed, but the meaning of that metaphor has been continuously and routinely elaborated. Indeed over the whole 300 years of the Bank that metaphor has been transformed.

Kuhn suggests that a scientist facing a new situation is guided by practice, through "ostension, the direct exposure to a series of [similar] situations" (1970b: 273). Schon argues however that in the context of innovation 'similarity relations' are an 'after-the-fact view', and proposes instead 'symbolic relations' where "new solutions - hypotheses or 'ideas' - come out of our attempts to find projective equivalents for aspects of the old theory in the new situation" (Schon, 1963: xi). He describes the process of finding projective equivalents as guided by various factors:

> the gifts of the various overlapping cultures involved, the metaphors underlying the ready-made theories in terms of which the new situations are already partly structured, and the demands of those new situations *(1963: xi)*.

'Projective equivalents' are not labelled in the new situation waiting to be plucked out by the practitioner. Rather practitioners subjectively engage with the new situation; they construct and synthesise patterns from the material. Furthermore, there must be some overlap between the patterns that practitioners are capable of imputing and the patterns that may be imputed to the material.

In seeking to 'put OBS on the map' the Open University Senate selected Thomson as its first Dean for his experience, social network in management education, professional legitimacy, and ready made theories about how to grow a business school. Thomson's demise is partly due to him not recognising or attaching significance to the collective expectation of staff that the OBS's development is a shared creative process. Were he in Timeplex he might find a 'lead from the front' and individualistic approach to developing the company very much in keeping with his peers' expectations. If subliminal strategies and prejudices carry any interpretive flexibility, then the possibility that the Bank's executive are able to interpret and express the Bank's own rules of behaviour creatively, and develop its capabilities in new contexts, in socially and economically viable ways, is an innovative process. The socially constructed nature of rules of behaviour makes them inherently open to interpretation,

expression, and development, and Thomson's (OBS), Campbell's (BoS), or Cecil's (Timeplex) challenges represent just three drivers of such revision.

We cannot say that should the executive reject Campbell's proposals for developing the International Division, then there is no change in the Bank's development. Rather his action of forcing them to think of, and accept or reject, new possibilities has shaped their experience, and subsequent proposals from Campbell or others may benefit from that shaping of experience. Similarly, although Thomson of OBS was not re-elected as Dean partly because many thought that he over-stretched the OBS' resources - for example opening too many study centres in Europe - his actions did expose the OBS to new and unanticipated challenges and opportunities. Although Asch the new Dean, champions a more restrained expansion, he and his colleagues draw on the OBS' earlier experiences under Thomson, developing their capabilities in dealing with different markets, languages, media, and an expanding support infrastructure.

Taken for granted knowledge

There are a few explicit guidelines that Campbell can draw on, but these guidelines themselves carry the weight of interpretive flexibility. For example, one codified guideline states that an acquisition should not be so big as to put at risk the Bank's survival if the acquired company failed, nor should it be so small as to make no significant difference to the Bank's income stream. The absence of specific financial criteria leaves a lot of scope for defining suitable acquisition candidates. Attaching quantifiable financial hurdles to such a guide paradoxically increases the arbitrariness of the guide. There are many interlinked considerations surrounding any potential acquisition that have to be weighed against each other, for example excluding a candidate on asset size in the face of other favourable factors.

Even explicit guidelines leave space for applying capabilities creatively. Garfinkel (1967) suggests that we "accomplish" (construct, render intelligible) our every-day reality through the application of taken for granted skills or competences, skills that draw on tacit and

contingent knowledge and go beyond written guidelines.[4] In interpreting the Bank's written guidelines on acquisitions Campbell and his colleagues are drawing not just on their collective rules of behaviour, but also on their individual and collective taken for granted knowledge and expertise. In drawing out his colleagues' taken for granted knowledge Campbell's aim in the coming months is:

> to try and distil these views and point out the inconsistencies and look for the consistencies, and say "unless I'm very much mistaken the way you want me to go ahead is this, and we're concentrating on... (I don't want to prejudge the issue but) we're concentrating on acquisitions, we're concentrating on English speaking countries...

In a study of how jurors make legal judgements, Garfinkel (1967) shows that when Jurors 'decide' they construct rather than discover the 'facts'. They give meaning to evidence that is often conflicting and incomplete, and their decision making is guided by inter subjective rules that they create, within which the 'official line' is one small part. Similarly, in studies of clinical practice Garfinkel found that no matter how codified or detailed the instructions, they could never be sufficient to explain clinicians' actions without "ad hoc considerations", that is without taken for granted skills (Garfinkel, 1967: 23).

Morgan in writing on organisation processes, draws on David Sudnow's observations on aspects of the American criminal justice system. Morgan notes that:

> even in the administration of justice, an area of human activity where action is supposed to be determined by clearly defined rules, the application of a specific law calls upon background knowledge on the part of the legal officer or judge that goes well beyond what is stated in the law itself. Cases of child molesting or burglary, for example, are typically assigned to legal categories on the basis of images and judgements as to what constitutes a 'normal crime' in these areas. A series of subjective decisions are thus made on the nature of the case before any rule is applied. Lawyers and judges do not follow the rules. Rather, they invoke rules as a means of making a particular activity or judgement sensible and meaningful to themselves and others *(1985: 129).*

The sentiment of this example is caught by Davis, Timeplex UK Managing Director who in arguing that he should head both Sales and Customer Support Divisions talk about the role of management as having "the right to make arbitrary decisions" (see 4.5.5).

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[4] Garfinkel (1967: 77) uses 'competence' to describe the right to exercise skill in managing and communicating decisions of meaning, fact, method, and causal texture without interference.

9.2.6 Section conclusions

The application of capabilities are grounded in knowledge, and this knowledge exists both as and within socio-cognitive structures. Knowledge is shaped by practitioners' subjectivity and therefore remains provisional. Practitioners construct their social and material reality through their interpretation and expression of knowledge; through their capabilities. Metaphors guide the interpretation, expression, and unceasing development of capabilities. At the same time the ambiguity of metaphors provide space for practitioners to reinforce and at the same time elaborate their social reality through the exercise and development of organisational capabilities. It is practitioners' creative interpretation of the exigencies of their reality, whether anomalous or not, that shapes what rules of behaviour (routines, recipes, heuristics) are invoked in ordering those experiences. In the process practitioners unconsciously draw on their taken for granted knowledge, previous socialisation, and their expectations for the future.

9.3 THE INTERPRETIVE FLEXIBILITY OF TECHNOLOGY-PRACTICE

While organisations accomplish their social and material reality through the exercise and development of capabilities, the interpretive flexibility of technology or more broadly technology-practice also plays a significant role in this process. This section explores the inseparability of facts and values, the interplay of subjective and objective reality in realising new configurations of technology-practice, and the temporal continuity of technology-practice.

9.3.1 Bounding the 'technology' in innovation

As noted in chapter one technological innovation is widely seen as a key to competitive advantage. Porter for example believes that technological change is "among the most prominent" drivers of competition and advantage (1985: 164). Innovation in "technology

based" or "technology-intensive" industries is recognised as "the basis for competition and as the determinant of industry evolution" (Grant, 1995: 287).

Traditionally mainstream management teaching treats technology as a neutral instrument to be controlled within the strategy process. Grant's (1995, 1991) texts on strategy treat technological change as industry specific and revolving around new artefacts. From Grant's perspective some industries are inherently more prone to disruption than others because of the change of technology within those industries. Porter sees himself as opening up the meaning of technology by what he regards as taking "a rather broad view of technology" (1985: 165). He shows how technology pervades every corner of the organisation's "value chain", not just those directly associated with the product.

These writers regard the direction of technological change as profoundly uncertain. They treat technology as an artefact, as an instrumental input to the creation of competitive advantage, something that is asocial and value free, whose meaning is taken for granted. This view is widespread in management teaching and practice. The periodic tabloid discussions about the impact of new technologies is testimony to the exogenous character invested in technology: displacing jobs, creating the paperless office, giving us more leisure time, the technology to manufacture life, the fear that robots will take over our lives.

The limitations of too narrow an interpretation of technology, or an uncritical use of the term is highlighted by the three organisations studied. Deciding what the Business School's technology is reveals a distinction between the technology *of* education and the technology *in* education. According to Percival and Ellington (1988: 13) writing on the nature of educational technology, it is "the 'gadgetry' of education and training, such as television, language laboratories and the various projected media" that is commonly associated with educational technology. They suggest that these artefacts are the technology *in* education. Encompassing these artefacts is the technology *of* education which concerns:

> improving the efficiency of the process of learning, ... done on the basis of research into the nature of the learning process, ... involving the design of teaching/learning situations and the use of whatever methods and techniques are judged to be appropriate in order to achieve one's desired objectives *(Percival and Ellington, 1988: 20-21).*

Staff in both the Open University and the OBS spend a lot of time and energy thinking about the technology *of* education: what distance learning means in the 1990s and how it has changed over the last 20-25 years; how to increase the quality of learning; how to develop in students the ability to learn to learn. There are on-going debates about the relative strengths of case study teaching, the placing of student centred 'activities' throughout teaching texts, the value of face-to-face tuition. Some believe that the technology *in* education can deliver the answer to some of these questions.

Those occupied with the technology *in* education have other concerns: what to do about the burgeoning range of communication and computer technologies, like CD-ROM and Internet; deciding how much of this new technology should be adopted; assessing how virtual reality tutorials might make an effective contribution to student learning, and whether it is cost effective; CD-ROM seems like a fast and effective way of delivering course material, but then students will have to have CD-ROM drives to access the material sent to them. Many are concerned that the technology *in* should not get in the way of, or lead pedagogic development.

Percival and Ellington's proposition about the nature of educational technology seem to apply equally to banking and telecommunication network management. The technology *of* banking describes the methods, capabilities or repertoire of competences involved in managing financial transactions, and the technology *in* banking is its Information Technology resource (Management Services Division), containing yet other methods and capabilities. The continuing development of remote banking draws on, and continues to develop capabilities across a spectrum of technologies, *in* and *of* banking. For example, socially acceptable and legal methods of conducting remote financial transactions, and more sophisticated equipment to provide more features, including the apparently contradictory requirements of ease-of-use and security.

Timeplex uses wide area network (WAN) and local area network (LAN) telecommunication technologies to support its business, the technology of managing global enterprise networks, on behalf of financial trading houses. Timeplex staff continually blend methods, artefacts, and work organisation routines to deliver their unique flavour of Enterprise Network Management. In all three organisations artefacts derive their value and relevance from the more encompassing technology *of*: education, banking, and telecommunication networks.

Clearly, as Bijker (1995: 231) has noted, deciding which technology is the right one depends on the questions asked. Is the correct focus 'artefact', 'method', 'work organisation', 'technology in' or 'technology of', or some other concept? Many organisations invest in particular technologies because they label them as 'strategic', and in deciding whether a technology is strategic or not organisations are forced to take a broader view than technology as artefact or technique. When the BoS executive revised their expectations of competition in the future ATM technology became 'strategic' (see 5.3). This example also shows the difficulty of, if not futility in, doing market research and cost/benefit analyses of an unconstituted future. Could BoS ever hope to come up with meaningful answers to questions about the shape of a future competitive dynamic whose shape would depend on what strategic actions BoS took, along with other socially relevant groups, primarily competitors, customers, regulators?

Distinguishing between artefacts, methods, work organisation, 'technology in', or 'technology of', 'strategic' and 'non strategic' can produce arbitrary outcomes, and masks the importance of the social processes that give meaning to artefacts. As Bijker observes, distinctions between artefacts, methods, and work organisation "seem to be rather spurious, [and] where such distinctions hold they are the result of technologists' work rather than being based upon intrinsic properties of the technologies themselves" (1995: 231). His account of Dutch coastal engineering and dike building between the 1950s and 1980s show how a diverse interpretation of technology gives meaning to, and derive meaning from, their interrelationship in context. His example also shows that the interaction of these diverse meanings of technology is an on-going source of innovation.

An interpretation of technology that reflects a diversity of meanings would be more useful in the quest to better understand the process of managing innovation. In the above examples, the technologies are interdependent, one giving meaning to the other in context. Separating them would distort understanding of technological change. Technology is an extricable part of social processes, because as Rosenberg says "in a fundamental sense, the history of technical progress is inseparable from the history of civilization itself, dealing as it does with human efforts to raise productivity under an extremely diverse range of environmental conditions" (1982: 3). Similarly Göransson in his examination of the success of new industries in developing countries suggests that "no society could exist without applying at least a minimum of technology" (1993: 4). A useful way of capturing the social dimension and thereby the interpretive flexibility of technology is provided by Pacey's (1983) 'technology-practice'.

9.3.2 Technology-practice

Pacey (1983) also considers such distinctions to be problematic, and offers a useful way of organising our thinking about technology. In arguing that technology is not culturally neutral, he suggests a distinction between 'technology' and 'technology-practice'. The former reflects the narrow meaning, and includes knowledge, skills, technique, and resources including people. The latter describes an interrelationship between two additional "aspects" of technology: culture and organisation, though as discussed in 7.2.1 this thesis prefers 'social reality' to 'culture'. Technology-practice is an inclusive concept in the same way that Hughes sees large scale technological developments are being more meaningfully understood as sociotechnical system (2.6.2). Pacey's distinction allows us to discuss the broadly similar yet relatively distinct practices of technology in each organisation; all three organisations depend on some form of information and communication technology, but in very different competitive settings. In these broader terms technological change includes aspects of organisation and culture.

In support of 'technology-practice' as a useful concept, Pacey draws on the established notion of 'medical practice', where the broader meaning allows "vigorous discussion to take place about different ways of serving the community" (1983: 4). He gives examples where artefacts (snowmobiles and water pumps) have to be modified to work effectively in different environments. Such environments are not just physically different; they are different communities with different social and economic values. Similarly in this analysis, technology-practice allows us to examine how, as an integral part of strategy practice, its interpretive flexibility contributes to differing socially constructed realities. The notion of technology-practice also helps us to explore the different ways that strategy is shaped by, and in turn shapes, technology-practice. Indeed this way of thinking about technology-practice seems to resonate with the notion of 'fit', a concept at the heart of prescriptive strategic management.[5] Technology-practice, like 'fit', addresses the interdependence of values, creative activity, economic activity, organisation, and productive relationships with other relevant social groups like customers, collaborators, and regulators.

Relating strategy and technology-practice in this way, as overlapping processes, opens up the danger of saying that the two are indistinguishable, and even that strategy is technology. For the purposes of this analysis there is an important difference between the two. Whatever else strategy may be, it is also a social process for the legitimate expression of preferences about the organisation's development. Technology-practice and technological innovation are largely a realisation of that expression. Strategy is a purposive process while technology is a directed process. This is not to say that technology-practice is entirely plastic, being pushed this way and that according to the whims of strategists. The relationship is socially constructed, not unidirectional. Strategy leads but in ways that are at the same time shaped by previously assimilated knowledge and technology-practice.

Miller and Duffy, two managers within the Bank of Scotland's Management Services Division, suggest that internal IT strategy discussions about changing the Bank's information

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[5] Strategic management teaches the centrality of 'fit', telling managers to match their resources to the external environment's opportunities and threats, and to seek a 'fit' internally between strategy, structure, and culture.

processing architecture from centralised to distributed processing were being hampered by an ingrained 'administrative philosophy', and long established capabilities based on centralised processing (5.3.3). Miller's and Duffy's observations gives a glimpse of how the Bank's history, culture, technological practices, and administrative philosophy have shaped, and continue to shape thinking; a history that is embedded in the work organisation practice of today. The sense of technology, organisation, and culture being interrelated in this way rings of Pacey's (1983) 'technology-practice', rather than discrete components of banking practices, organisation structure, and technological artefacts all bumping into each other. How the Bank's IT strategy will develop over the coming years is already being influenced by existing technology-practice.

The technology-practice of each organisation is in a state of flux, yet at the same time remains as distinct sociotechnical systems of people, knowledge, things, processes, values, ideas. For example, as noted earlier various committees within OBS are agonising over what form their future technology-practice should take: what technology, how should they be organised, whether their values and beliefs about progress are helping or hindering technological development. Some departments, impatient with what they regard as the slow and lumbering decision making machinery of the broader Open University structure, have either committed to particular changes or started to experiment with different technologies. Most of these excursions and developments are possible because the Open University exists as a tension between administrative hierarchy and academic freedom.

The Technology Faculty has introduced its own small scale printing and copying facility and loose leaf teaching material (6.6.4). They see a future where the demand for course variety is greater, with each course consequently attracting fewer people. In addition, they see a competitive advantage in being able to update course material as a continuous activity, rather than infrequent major changes with everyone having to live with material becoming progressively out of date. Such excursions, experiments, and independent actions represent technology-practice in flux and development. At the same time the social reality of OBS and the broader Open University remains supported by, and continues to support, a stable

technology-practice. Courses continue to take almost two years to write, are delivered as bound units, and because of the large investment in time and production, must have a life of about five years or more. Some even suggest that as the Open University bureaucracy has grown, course production time has also expanded. Some think that courses take longer to produce today than say ten or fifteen years ago! In defence of the establishment, others argue that the variety and quantity of courses on offer fifteen years ago is a fraction of what is available today.

9.3.3 Interpretive flexibility of technology-practice

Clearly, social process is explicit in technology-practice. To press the argument further, there has been broad agreement for some time among writers on the sociology of science and technology, that the separation of technology and social process is inappropriate for the study of technological innovation. In their study of the historical development of the bicycle, Pinch and Bijker (1984) suggest that technology carries interpretive flexibility. People may have alternative perspectives: the way they think, what they regard as facts, and how artefacts are designed. Implicit in this view is that artefacts and technological development generally are the outcome of competing or co-operative social processes. Indeed any given artefact is an embodiment of particular social preferences, and in this sense there is no technologically determined core.

Schwarz and Thompson (1990: 15), in their study of national technology policy development practices, note three assumptions that underpin most studies on technological decision making: that technology has a substantive core; that choice centres on the impacts that the substantive quality of technology has on society; that technology is exogenous to social processes. In their view this narrow interpretation of technology, as somehow inelastic and exogenous to social processes, is undermined by at least three related factors. First, technology-practice, like medical practice, reflects socio-cognitive commitments; 'facts' are socially defined. Second, technological change also grows out of the convergence of subjectively available capabilities and the exigencies of an enacted reality, both social and

material. Third, technology-practice in the 'here and now' reflects historical commitments to particular developmental directions, the currently perceived needs of the business, and expectations for the future. These three areas warrant some detailed consideration.

9.3.4 The indeterminacy of facts and values

The distinction between technological facts and social values is indeterminate and arbitrary. Where one begins and the other stops is impossible to define; it is slippery or "inchoate" (Schwarz and Thompson, 1990: 149). Thus facts are always incomplete, reflecting evaluations involving knowledge claims, social and personal assumptions, and are always open to multiple interpretations and revision. The indeterminacy of facts and values discussed here is distinct from Simon's (1957) position. Whereas Simon argues that facts and values are inseparability because of limits on time and information available, here their inseparability rests on the idea that facts are necessarily value laden and socially defined. The impossibility of separating facts from values is evident in that strategic choices about the future do not leap out as self evident, as inescapable truths that practitioners read off. This can be seen when practitioners try to assess the potential of a new market, or try to define the technical difficulties of using an unfamiliar technology, or seek to estimate the cost and time to generate the first production unit. BoS's actions over its ATM commitment presents this as a strategic dilemma. The 'facts' in the form of a 'correct' decision stabilised for a while but the BoS executive subsequently revised the value of those facts in light of competitive action.

As the ATM example shows, practitioners of BoS and the Royal Bank of Scotland can have very different anticipations of the future, depending on what assumptions they make, what information they use, and how they interpret it. Having different anticipations may seem reasonable since the two banks are different organisations. However the same interpretive flexibility of facts and values can be found within the same organisation. For example, it was abundantly clear to Shaw, Timeplex's UK Sales Director, that their customers' future internal financial transactions and information flows would require their telecommunication installations to consist of thousands of low value modems. Further, in the scenario of Shaw

and his sales colleagues, income streams would depend on Service with "the products tucked in behind". He could not understand the continued commitment by his leaders in the USA, to high value modems for low volume applications. Nor could he understand why they were investing billions of dollars in new products, and relatively little in developing a Service oriented infrastructure. The commitment of his leaders is rooted in different assumptions about how the future will look, and about the best way to compete in that world. He did not share those commitments.

9.3.5 Subjectively available capabilities and enacted reality

In addition to a particular organisation's technology-practice being embedded with particular assumptions, such practice also carry implicit commitments to multiple developmental options that transcend organisational boundaries. As noted above (9.3.2) all three organisations studied use information and telecommunications technologies, but in fundamentally different ways. Move one level down, so to speak, from this common base line of telecommunication and computer technologies, and look within the Bank's existing technology-practice. We find that the basis of a remote banking capability was in large part laid down in the aftermath of BoS's decision during the 1970s to invest in ATM technology. The Home Banking capability emerged and was given meaning by the juxtaposition of three factors. First, anomalies in the competitive environment, in the form of the English banks entering Scotland. Second, subjectively available technical and organisational elements that could be reconfigured to constitute an appropriate technological response. Third, serendipity or "accident and sagacity" (Remer, 1965); the Bank executives' judgement in successfully marrying the first two factors.[6] The Bank's success in its response can be measured as the degree of usefulness that potential customers, other banks, and BoS itself derived from the convergence of these three factors. Observers hailed Home Banking as an innovation. This

[6] From the fairy tale 'The Three Princes of Serendip' "As their highnesses travelled they were always making discoveries by accident and sagacity of things they were not in quest of". Remer's (1965: 6) English translation.

recognition lent legitimacy to BoS's response, and at the same time encouraged other financial institutions to develop a remote banking capability.

In formulating a response to the threat to their home market, the Bank's executive remained committed to 'stewardship', but they recognised that the banking industry's traditional recipe for growth of increasing the Branch network, would be too costly, and would take too long. Something had to be done. The General Manager of Centrebank said "when the English banks came across the Scottish border, we scratched around to see how we could respond. We could not afford to open Branches all over England, and we had most of the technology lying around, so we decided to try it". This example suggests that the Bank's technology-practice could be configured in many ways, depending on how the Bank's executive interpret the exigencies of their reality. In dealing with a new competitive scenario, the success of the Bank's strategy practice has been its ability to create relationships and meanings from its technology-practice that did not exist before, and "to integrate and motivate [its resources and capabilities] in order to exploit their inherent potential for innovation" (Grant, 1995: 288).[7]

Traditionally within Timeplex's technology-practice, many services are unintentionally provided freely with the product, particularly technical advice. During the last decade, as part of the fashion of 'downsizing', 'de-integration', and generally looking for ways to cut overheads, many companies have been contracting suppliers like Timeplex to take over the management of their telecommunication networks. Timeplex Customer Support recognises this as an opportunity to expand its existing range of technical support capabilities, and to charge for a broader range of services. In addition the Professional Services department was emerging as a response to the possibility of taking over and charging for these services and the creation of new ones, whether based on Timeplex's or other competitors' products.

In these examples the development of technology-practice is conditioned by the interplay of an enacted reality of the 'here and now', and the collective's creativity in formulating and applying new configurations of its technology-practice. The capabilities of technology-

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[7] Grant was describing the role of innovation in competitive advantage in technology-intensive industries.

practice is not simply a box of pre determined technical choices based on accumulated knowledge. These capabilities are composed of various "aspects" (Pacey, 1983: 6) of practice: technical, economic (for example experience curve gains), and social commitments.

9.3.6 Heritage, exigencies, and expectations

Particular technology-practices also grow out of a combination of the ongoing assimilation of collective experience (Fleck L., 1979) and capabilities, rather than being logical extensions of some inherent qualities of artefacts, as may be implied by the notion of 'technological trajectory', or an independent technological agenda (2.6.1). The Bank uses its Management Services Division (MSD) to support its banking enterprise, and since strategy practice is progressive, subsequent demands on MSD build on previously established banking expertise and structures that reflect earlier developments of technology-practice: taken for granted theories about what constitutes good banking practice, artefacts, methods, work organisation, and control systems. While practice is being guided by heritage, the ongoing assimilation of experience and capabilities keeps the development of practice open to new configurations. For example, although Browning of BoS, maintains that the Bank remains committed to centralised processing, others are exploring an open systems architecture (5.3.3). Although Richardson, Deputy General Manager of MSD, is adamant that MSD's role is to support divisional business needs, some Operating Divisions want more control over their information, because individually they see their Divisions competing in increasingly divergent competitive environments, and feel that a centralised support system is often too inflexible and costly. For example, they can buy some software off-the-shelf more cheaply than it would cost MSD to develop. As the cost of computer processing power continues to fall, and individual Divisions develop in technologically diverse directions, meeting their different expectations may increasingly become a constraint on their growth, or MSD may play an increasingly diminished role within the Bank, or MSD's role may develop in different and currently unanticipated ways.

Nevertheless, current thinking among the Bank's executive is that allowing each division too much autonomy could lead to duplication of IT resources and increased overhead cost for those divisions that do use MSD. Furthermore the Bank's capabilities and structures in centralised processing far outweighs its capabilities in distributed processing. The existing work organisation, reporting and control methods, and repertoire of competences and tacit knowledge are all rooted in centralised processing, and have been refined over decades. The development of the Bank's technology-practice is being guided by historical commitments in tension with differentiated divisional perspectives on today's and tomorrow's business needs, rather than any logically determined consequences of hardware choices.

The technology-practice of OBS is inherited from the Open University. The socially constructed reality of OBS is at the same time shared with, yet quite distinct from, that of the Open University. An important difference is the OBS's sense of being market driven, as is reflected in its marketing and sales organisation and competitive pricing of courses. The OBS technology-practice is at the same time legitimised by the usefulness that the management education sector attaches to its courses, and the existence of an enterprise culture that supports management education and training. Evidence of the legitimacy of the OBS approach is its claim to account for 40% of all UK distance learning programmes (6.2.1), and the public appetite for new books, videos, television programmes, and executive courses on all kinds of management topics seems to continue unabated.

Suggesting that technology-practice has interpretive flexibility does not mean that all possible futures are obtainable. The development of technology-practice is shaped by: constructed boundaries between facts and values; by the convergence of subjectively available capabilities and the objectified exigencies of 'the here and now'; and by the perceived needs of tomorrow's business environment in tension with heritage.

9.3.7 Failure

Failure like anomalies is an unavoidable prospect and feature of the interpretive flexibility of technology-practice. Failure may occur when stakeholders cannot agree on what the problem is, what the facts are, and what method should be used to deal with it. Witness the continuing conflict over British 'mad cow disease' within the European Union. Failure may be due to technical, organisational or taken for granted theories of good practice. Timeplex's 'escalation log' exists as an organisational solution to a resource problem. This register of installation problems exists because there are not enough engineers available to successfully install all new systems as fast as the sales people are able to generate orders, an organisational failure in itself. This solution fails from time to time as promises to customers that their system will be 'up and running by next Tuesday' cannot be met for a variety of reasons: engineers are committed to other projects; replacement products are not yet available; even if products are available, major network bugs continue to frustrate engineers' efforts. In addition, sometimes customer dissatisfaction forces Timeplex to rearrange the priority of their work. These failures can be understood in terms of the company's shared reality. In Timeplex engineers, sales people, and managers, all share a commitment to the pursuit of novelty and interesting technical and commercial opportunities, more than maintenance of the mundane. The escalation log represents mundane work compared to sales opportunities or new technical fixes, and in Timeplex this log sits uncomfortably with their shared sense of entrepreneurialism.

Sometimes failure in technology-practice is due to resistance to change, where the resistance is rooted in taken for granted theories of good practice, but disguised as more practical concerns (Pacey, 1983: 11). Traditionally there is a division of labour between writing and editing courses (the author's job), and the formatting of text (the secretary's job). This division of labour is supported through union and 'civil service rules'. The increasing sophistication of computer software makes it possible for authors to write within prepared formats, and for secretaries to manage some aspects of editing and develop a broader

production management function. The advent of electronic mail also makes the production of hard copies and disk copies during drafting an unnecessary administrative burden.

In light of these technical and organisational possibilities the continuance of the division of labour between author and secretary looks increasingly spurious. However changes in working practices are proving difficult because of ingrained practices. Many academics express concern about giving any editorial function to secretarial and administrative staff, and the latter voice their concern that their traditional roles are in danger of disappearing. These are fears about loosing control of existing competences and responsibilities, and fears about being able to develop new competences in a publishing context that is itself in a developmental state. Theories of good practice are being rewritten, but no one is clear about what the new rules should look like. Nevertheless, the OBS leadership is intent on reducing the course production time, to which end the OBS leadership and union representatives (administrative and academic) have for some time been negotiating a route through this difficulty. In this negotiated process the OBS leadership seeks changes to existing working practices, including the adoption of appropriate software and hardware, while protectors of existing technology-practice aim to wring concessions from the proponents of the new practice.

9.3.8 Section conclusions

A narrow interpretation of technology increases the possibilities of failure because it ignores the 'seamless web' character of the sociotechnical (2.6.2). The broader definition of technology-practice on the other hand goes some way toward anticipating the constellation of opportunities and interesting dilemmas that underpin innovation processes. Technology-practice when crystallised as particular artefacts or work organisation arrangements do shape as well as reflect particular social and economic preferences. In designing the next iteration of software and hardware, or in reshuffling the Customer Support organisation, practitioners start from the sociotechnical commitments they have. Even when they decide to a make a major leap (for example for BoS to embrace open systems networking, or for Timeplex to

successfully develop their Advanced Technologies), they still start with substantive elements, but a substantiveness that itself has interpretive flexibility.

More broadly, practitioners also create their social reality through the interpretive nature of technology-practice, but there are limits. While each organisation has made technological leaps, such as Home Banking, a switch from banking to telecommunications networking is likely to require such a fundamental change of technology-practice that we might talk of a switch of social realities. Chapter 10 explores how alternative social realities constrain as well as provide the scope for innovative behaviour.

9.4 STRATEGIC INTENT

If practitioners construct their shared reality through practice, a reality that at the same time guides practice, then within this context strategic intent and revealed performance are also socially constructed. This section examines the nature of intent in terms of goal seeking or goal setting behaviour, and the extent to which revealed performance is a logical and computational consequence of strategic intent, or is socially shaped.

The notion of strategic intent ignores or masks a range of issues that undermine the very essence of the rationality of choice, such as the presumption that decision is detached and value free. Criticism of rationalistic strategy is widespread. Following Simon (1957), the limitations and assumptions of rational choice are widely recognised. For example, they show that individuals and groups work within limits of cognition, communication, incomplete knowledge, and habits (see also 2.3.3). Moreover, in constructing social reality, practitioners also 'bracket' the flow of their individual and collective experiences (James, 1950;Weick, 1979). They selectively organise and give meaning to the morass of data and information that is part of their everyday experience.

> People in organisations try to sort this chaos into items, events, and parts which are then connected, threaded into sequences, serially ordered, and related. When we create serial orders we often find relations that were never presented to the senses at all *(Weick, 1979: 148, 149)*.

The construction of the analytical story of this thesis is a good example of bracketing; deciding what is and is not relevant, and imposing connections on the empirical evidence. The intended outcome seems to become more clear through attaching meaning to experiences in the present, and many seemingly reasonable meanings may be imposed on the present. On this basis and the foregoing analyses, it seems that strategic intent is open to negotiation. 'Emergent strategies' do not depose 'intended strategies' (Mintzberg, 1978a) because they are better, but because of the scope for alternative interpretations and expressions of heritage, the exigencies of the present, and anticipations of things to come. The process of bracketing is itself an 'accomplishment' (Garfinkel, 1967), something involving taken for granted skills, and probably contribute to the creation of new organising metaphors.

In bracketing and ordering their flow of experiences, the practitioners in this study seem to orient their everyday reality around a mixture of intent and rules of thumb. The following sub-section assesses the extent to which strategic intent is about goal seeking or goal setting, and the role of heuristics therein.

9.4.1 Goal seeking, goal setting, and heuristics

Schwarz and Thompson reject "goal seeking" or rational maximisation theories of decision making as being "too tidy [because they] ignore the dynamics and ambiguity involved in policy processes" (1990: 50). They equally reject the 'garbage can' model of decision making (March and Olsen, 1976) as being too relativistic, too anarchistic because it ignores the political and economic imperatives that give strategy its purposive character. Organisations do have to account for their actions, and since many do survive long enough to become household names they must be having some success in justifying their continued existence. Schwarz and Thompson (1990: 52) suggest a sort of mid-way model of 'constrained relativism', which replaces 'goal seeking' with 'goal setting'. In this they are moving the focus from evaluating performance in terms of degrees of maximisation achieved, to evaluative criteria that measure more fuzzy variables: sharability, credibility, and

accountability.[8] These criteria are unlikely to cover the diversity of performance dimensions of an organisation, but they do go some way toward reflecting the profoundly social nature of strategy practice.

While 'goal setting' seems to account for political legitimation of strategy choice, it does not account for the fundamental uncertainty and interpretive flexibility of technological change.[9] There is a sense of rational selection from a range of alternatives, based on access to the 'facts', albeit politically legitimised. Goal setting (and certainly goal seeking) seems to ignore the extent to which choice is intentionally or unintentionally delegated to elaborate procedures and rules of thumb (Nelson and Winter, 1977). In this way uncertainty is by default reduced to risk assessment, and scope for interpretive flexibility is closed down or programmed out. This can be seen in the Open University's attempts to develop a 'resource flow model' (6.5.3), and discussed below.

The organisations studied here evaluated their decisions in a variety of ways. The BoS Divisions give more importance to goal setting (procedural rationality), with goal seeking (substantive rationality) being regarded as achievable outcomes as long as continuous attention to detail and stewardship is maintained. The OBS also seems to pay greater attention to goal setting, something that is enshrined in its equal opportunities philosophy, and open and distributed access to decision making. Against this position, goal seeking seems to be a self imposed discipline, with revealed performance (including income generating success and student registration numbers, research rating) used as symbols of the OBS's independence of the parent Open University, and as evidence of being a major force in the competitive environment.

Although BoS claims to have abandoned formal strategic planning many years ago, its social reality carries many vestiges of those times of top down control; further evidence of the

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[8] Various criteria for evaluating strategy making exist: Johnson and Scholes' (1989) Suitability, Feasibility, Acceptability; Rumelt's (Mintzberg et. al., 1995: 92) Consistency, Consonance, Advantage, Feasibility; the Civil Service 'four Es' (efficiency, economy, effectiveness, equity).

[9] MacKenzie (1992) suggests that uncertainty and 'interpretive flexibility' relate to similar concerns.

temporal continuity of social reality discussed in 8.3 and 8.4. Divisional autonomy and 'opportunism' are commonly presented by Bank staff as unique characteristics of the Bank. Despite this, Campbell of the International Division remains well aware of the importance of legitimation from the Management Board as he considers his options for growing his division. Also Browning's statement that the Bank remains committed to centralised data processing, whatever divergent views individual divisions may have, is reminiscent of top down strategic planning.

Heuristics are also an important and very visible aspect of BoS strategy practice. Projects labelled as 'non-strategic' by the Management Board routinely pass through the Management Services Division's elaborate and formal cost/benefit analysis procedure. The project assessment and selection process is very sophisticated and it seems likely that the procedure shapes strategy choice as much as choice shapes the procedure, as evidenced by the reversal of the decision not to invest in ATM capabilities. More formally, a decision that is labelled 'strategic' in BoS acquires that status from the Bank's formal executive, the Management Board. 'Strategic' labelling seems to involve judgements in advance of any rule following, akin to Garfinkel's (1967) 'accomplishment' (9.2.5).

In OBS strategic actions may by proposed by its executive, but closing a decision rests on getting consensus from the breadth of OBS and sometimes from the Open University's Senate. Achieving this closure takes place formally and informally, with the latter being the critical mechanism as individuals posture, bargain with the "movers and shakers" (in the words of one member), coerce the politically weak, and co-operate with each other prior to and after formal decisions. Whatever their differences, political legitimation seems to be a very important element of goal setting for both BoS and OBS.

In Timeplex 'goal seeking' seems to be more prominent, with 'goal setting' being a luxury to be accommodated during the good times. Timeplex managers and engineers are much more focused on the colour of the 'bottom line', both in pursuit of individual hidden agendas and in pursuit of company financial targets. These targets are often imposed on managers, and may bear little relation to formal submissions of budgetary requirements and sales forecasts.

How these targets are achieved are entirely at the discretion of the budget or forecast holder, including firing staff at short notice or entering promising commercial deals without recourse to senior executives.

While Timeplex may be characterised as 'goal seeking' and OBS as 'goal setting', in both organisations, as with BoS, 'rules of thumb' are an integral part of strategic choice. The sense that such heuristics do shape strategy choice is reflected in the OBS's growing dissatisfaction with what they see as the arbitrariness and distorting effects in the parent organisation's allocation of overheads (see 6.5.3). Indeed the basis of the allocation has been lost in history, and many believe they have not been revised as the university has developed. The rules governing travel expenses is one example of this: one may claim business travel costs from the University's site in Milton Keynes to anywhere, but not from one's home address to the same destination.

Like most large organisations Timeplex has many manuals of procedures. However, from a strategy choice perspective probably the most influential heuristic is 'anything goes'.[10] As Hammond, Human Resources Manager of Timeplex says, there are a lot of "constituency builders" in the company looking for an opportunity; people who are always looking for alliances and who "thrive in [this] environment, they love this sort of environment because it isn't structured" (see 4.5.2).

If strategy practice in BoS is likened to an old and well ordered metropolis, where governance is underpinned by common and statute law, strategy practice in Timeplex is akin to the wild west, populated with frontier people who make up the rules as they go. Having discussed the nature of strategic intent goal seeking and goal setting, the next sub-section assesses the extent to which revealed performance is driven by strategic intent in a determinate sense.

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[10] Some might argue that 'any thing goes' is not a heuristic because it is not deliberate. The response to that challenge is that, in the context of this organisation's social reality, 'anything goes' is a meaningful guide to action.

9.4.2 Revealed performance

Rational accounts of firm behaviour claim a direct link between strategic intent and revealed performance. Corporate reports give details of annual financial performance, new product introductions, growth in market share and assets. These 'facts and figures' are all provided as evidence of the performance of strategic intent. Ascom, Timeplex's parent, for example, describes its influence on the telecommunications market:

> Ascom continues to invest a substantial proportion of its turnover in research and development. This reinforces the group's reputation for high quality products and service which have been built up over many years *(Ascom: A company profile, ref. AUK/4/93).*

The promotional literature goes on to describe how during the 1980s Ascom introduced a new data transmission system for connection to the ISDN, and that British Telecomm bought that system. It became the "backbone" of BT's KiloStream transmission system. In this example, Ascom has collaborated with BT to shape part of the telecommunications environment, which at the same time has shaped its own subjective view about the value of its R&D investment.

Such accounts suggest the successful accomplishment of an intended strategy, but is it so? The evidence is that this is a far from straightforward question. As discussed earlier, some studies suggest that success comes from industry structure and competitive positioning, while others suggest that superior profitability depends on how individual business use their resources and capabilities (see 2.4 and 9.2.1). In concluding that practitioners' actions do make a difference, Rumelt speculates that this might be due to "product-specific reputation, team-specific learning, a variety of first-mover advantages, causal ambiguity that limits effective imitation, and other special conditions" (1991: 180). Beyond Rumelt's speculation there is little evidence that this success is due to strategic intent in any deterministic and computational sense.

In support of Rumelt's suggestion there is evidence of learning and contingent adaptation. Mintzberg and Waters (1985) longitudinal study of decision making in Volkswagen and the

National Film Board of Canada shows that quite often different 'realised' strategies 'emerge' regardless of intent. In a different context Fleck J. (1992), and Fleck *et, al,*. (1990) shows that the implementation of CAM, robotics and other technologies involve a significant amount of innovation to get them to work, rather than the unproblematic realisation of intent. However, the following accounts show that revealed performance is more than learning and adapting to an objective reality. Political processes, accounting practices, self-fulfilling prophecies, and socio-cognitive commitments also shape practitioners' revealed performance and strategic intent.

9.4.3 Constructing performance

As argued earlier political behaviour plays a significant role in shaping strategy (8.4.5). Knights and Morgan argue that there is no correlation between strategy intent and outcomes "except in the rationalised accounts of strategists whose identities as well as material privileges are tied to an interpretation of the success of strategic management" (1990: 482). Since those that are accountable for performance have a vested interest in showing a positive correlation then conscious attempts to construct favourable stories are unavoidable. Senior managers of Timeplex are adept at 'sand-bagging', moving budgets around in space and time to achieve expected performances. It is also a competitive game. Some of Timeplex's senior managers keep a critical eye on each other's financial forecasts. At least one senior manager has laid claim to a colleague's job and department claiming that the colleague is 'sand-bagging' or submitting unrealistically low forecasts to make his quarterly financial performance look good.

During the last two years the Open University's Faculties have been unable to agree on a common method of accounting for income and expenses ('resource flow models' come and go), because each possible model carries a package of differentiated costs and benefits for each Faculty. All parties recognise that their future performance will be defined by the way they configure the university's resource flow model today. The OBS wants a model that reflects its financial contribution to the university, and wants more control over the use of its

income. OBS also wants the current method of calculating overhead allocation to be reviewed because it claims to be carrying a disproportionate share of the costs against actual use. Some other Faculty representatives feel that the University as a whole is more important than its individual parts, and perhaps overheads should be spread according to ability to contribute or relative income levels between Faculties. Some others suggest that individual Faculties should make a contribution for the exploitable value of the University's reputation; a veiled reference to OBS' performance being due to its parent's reputation.

In this example and the 'cross charging' between Divisions within Timeplex (4.5.5), practitioners are well aware that their value to the organisation depends to a greater or lesser extent on how profit and costs are defined: Timeplex's Customer Support Division will attract more resources (engineers, managers, investment) if they can show income growth from their activities; OBS will look more or less profitable depending on whatever resource flow model is developed; and the design of model will shape the scope for innovation across the whole University. As MacKenzie shows, the meaning of profit changes with accounting practice, and can "channel innovation" (1992: 37) toward reshaping revealed and unsatisfactory cost structures. Where labour intensive operations are regarded as higher than automated operations this is often seen as a reason to increase automation. In choosing a resource flow model the Open University leadership cannot know in advance the consequences of its decision, even with the most sophisticated scenario testing techniques. Nevertheless, future strategic choices will be shaped by the design of resource flow model, encouraging and discouraging particular innovation opportunities that cannot be determined in advance.

9.4.4 Virtuous circles

Strategic intent is also often imputed to what is a virtuous circle (Knights and Morgan, 1990; MacKenzie, 1992). For example, organisations may perceive the market developing in a new way, and develop strategies to facilitate that perceived development. The market then reflects that anticipation back to its suppliers.

Timeplex has formed the view that a new technology (Advanced Technologies) based on a synthesis of LAN and WAN is needed if they are to compete in the future. They are developing new products and training staff to exploit this new technology, and telling customers that this is the way ahead. Customers in turn are evaluating competing telecommunication network suppliers on the basis of their progress in this new direction. In other words, Timeplex and its competitors' intended strategy is part of a self-fulfilling loop of anticipating certain market expectations, persuading customers and themselves that Advanced Technologies is the next technological step, selecting confirmatory evidence, refining strategy to meet those anticipated expectations that they helped create.

Timeplex's Advanced Technologies is not gathering momentum or following some technological trajectory because of any inherent technical superiority but "because of the interests that develop in its continuance and the belief that it will continue. Its continuance becomes embedded in actors' frameworks of calculation and routine behaviour, and it continues because it is thus embedded" (MacKenzie, 1992: 34). Nelson and Winter (1977: 57) suggests that where heuristics facilitate successful technological development, such incremental learning reinforces the continued use of those heuristics. Like MacKenzie they argue that it is technicians' beliefs about what is feasible that maintains their commitment to a particular line of technological development. Relatedly, Rosenberg (1982) and David (1975) in their studies of technical progress found that future choices are shaped by localised learning-by-doing rather than by managers optimising from all possible options.

In suggesting that strategic intent exhibits self-fulfilling properties is not to say that practitioners are deluding themselves. Social groups (buyers, suppliers, regulators, competitors) define their relevance to, and contribute to the construction of, a particular social reality by buying into the same presumption of logic. During the 1970s and 1980s house prices in Britain rose at a progressively alarming rate. Home owners saw their home as an investment opportunity, moving house every two or three years or less. Building Societies, the main source of home loans, confirmed the rise in house prices through their monthly and quarterly surveys. House prices continued to rise because buyers, loan providers, and estate

agents believed they would rise. Similarly, the financial markets maintain their growth through the same loop of anticipation, confirmation, and reinforced anticipation, crashing when confidence in the continuance of that growth evaporates.

Self-fulfilling processes are not always virtuous circles. Sometimes they may be vicious circles. In Timeplex Hammond's "constituency builders" actively and consciously seek to manipulate the company's 'grapevine'. As described earlier one person had started a rumour that others were about to be made redundant, saying that "rumours can become self-fulfilling"(4.5.2)!

9.4.5 Section conclusions

Whether strategic intent takes the form of goal seeking or goal setting, it is bound up with heuristics; 'rules of thumb' that shape choice, formally or informally, and give legitimacy to strategic choice. Heuristics may be taken for granted, surviving unchanged over time, whether or not an organisation has formally changed its way of working, as for example strategic planning in BoS, or accounting practices in OBS.

The evidence suggests that there is no deterministic relationship from strategic intent to revealed performance. While there is evidence that firms owe their success to how they use their resources and capabilities, rather than it being at the whim of industry structure, there is weak evidence that that success is due to determinate control of their destiny. Revealed performance is as much a product of practitioners bracketing their flow of experiences, often retrospectively, politics, self-fulfilling prophecies, and shared commitments and expectations among competitors, customers, and other relevant social groups.

9.5 MAIN CONCLUSIONS

In conceiving of strategy as a resource for solving problems 'rational' practitioners get more than they bargain for. Practitioners of OBS, BoS, and Timeplex, necessarily if unknowingly accomplish not only their material reality but also their social reality through the creative

exercise and development of their capabilities. In this process practitioners' judgements and choices are unceasingly shaped by diverse streams of spatial and temporal resources that they remain only dimly aware of. Individual and collective judgements are imbued with taken for granted skills and practices, heritage, and their anticipation of 'things to come'; shared meaning and at the same time differentiated social values, shared capabilities and differentiated assessments of those capabilities.

Capabilities shape social and material reality through various factors including: the creation and assimilation of knowledge that is rooted in social values; knowledge that grows out of the interaction between our subjectivity and an enacted reality; the openness of socio-cognitive structures to interpretation and expression; the interpretive flexibility of technology and technology-practice. These considerations are not defined by the formal organisational boundary, but bound up with the tradability of capabilities, managerial socio-economic preferences, and institutionalised relationships, both formal and informal, between a range of sectoral stakeholders, including managers, shareholders, employees, customers, suppliers, and regulators.

Debates about whether trajectories reflect institutional commitments or technological or economic imperatives, obscure the extent to which social, economic, and technological factors are inseparable. Practitioners construct boundaries between facts and values; boundaries that shape knowledge creation, and the crystallisation of that knowledge as socio-cognitive structures and heuristics. Growth, whether corporate or sectoral, evaporates for the same reason that it is maintained: through increasingly differentiated economic and technological assessments of situations and events, and a wavering of socio-cognitive commitments to 'the way we do things around here', rather than through some technical veto or the obvious clarity of facts. Revealed performance can be accounted for more by these complex processes than by the imputed computational force of strategic intent.

There is evidence in this analysis that the three organisations approach the practice of strategy differently. For example, differences in trading capabilities (9.2.4), the expected practice for the creative development of the organisation (9.2.5), and the different

assumptions about strategic intent (9.4.1). Chapter 10 explores these differences, comparing and contrasting their approaches to practice as alternative social realities.

10

Plural Social Realities

10.1 INTRODUCTION

Chapters 8 and 9 show that for all three organisations strategy practice constructs and reflects a shared reality about how to co-operate and compete; a reality that while stable always remains provisional because of the interplay of a host of socio-cognitive processes (ch. 8). The influence of these processes transcends practitioners' attempts to order and systematise strategy temporally into the elements of analysis, evaluation of possible options, followed by implementation. Indeed for this reason strategic choice is better described as 'social choice'. Making sense of social choice means understanding the social reality that gives meaning to choice.

Fieldwork evidence suggests that social reality is constructed differently in each organisation. A sense of this difference has surfaced in various places: strategy practice in the Bank of Scotland seems to have a lot in common with the 'determinate' metaphor of strategy, while the 'managed chaos' metaphor seems a more appropriate description of practice in Timeplex (see 4.7 and 5.7); practitioners in the Bank of Scotland were found to share a belief in stewardship, seeing themselves as caretakers of the Bank, while those in Timeplex share a more territorial and individualistic outlook (see 8.4.1); strategic intent in the Bank of Scotland seems to be concerned with refining routines and procedures in pursuit of efficiency gains, against a tendency in the Open Business School to seek broad consensus in strategy making and implementation (see 9.4.2). Indeed the social reality of each organisation appears to have distinctive and discernible characteristics, just as Benedict's primitive communities make sense of their reality in fundamentally different ways (see 7.2.2). This chapter offers a systematic exploration of these differences, providing a comparative analysis of the three organisations' social reality.

As argued in chapters 7 and 8 the practice of strategy in an organisation is the embodiment of a way of life for its practitioners; practitioners' sense of value and relevance comes from their shared reality. Understanding why the practice of strategy is the way it is, why it seems determinate or managed chaos, requires understanding the way of life that practitioners take for granted. The general framework used to analyse these differences in social reality emerged while looking for ways to organise my thinking about how practitioners in the three organisations seemed to interpret and use the concepts of strategy and innovation differently. Bloor's '*Wittgenstein: A social theory of knowledge*' offered a way forward, in particular his analysis of Wittgenstein's 'language games' and 'forms of life', using Douglas' group/grid framework to show that scientific knowledge creation is shaped by different ways of seeing the world. From this I explored Douglas' work further, harnessing and adapting it to the following analysis because it seems to offer ways of making sense of the differences in the three organisations' social reality.

The chapter is organised as four parts. First an analytical framework for comparing organisational social reality is introduced. Second, a few other themes that seem to lend support to the analytical framework are introduced. Then, the behaviour of each organisation's membership is discusses in terms of this framework. This is followed by a comparative discussion of practitioner behaviour, drawing on the preceding analysis.

10.2 CHOICE AND SOCIAL REALITY

10.2.1 A typology of social realities

Many writers have developed descriptive frameworks to offer comparative accounts of various societies and communities, for example cultures (Douglas, 1982a, 1982b), and political regimes (Swanson, 1967).[1] Douglas, a social anthropologist, developed her 'group/grid' construct to describe and compare cultures of entire communities. Her ideas are

1 Ostrander (1982) has usefully tried to collapse many of these accounts into one framework. although some would argue that the resulting generalisation does some violence to the nuances of individual accounts.

based on many years of studying the cultures of societies, both 'primitive' and industrial, and her work has been very influential in a number of different contexts, and at different levels of aggregation. For example as a tool for assessing the experiences of research scientists moving from academia to industry (Bloor and Bloor, 1982), and for explaining the rationalities and conflicts engaged in macro technological policy development (Schwarz and Thompson; 1990: 7).

The analytical framework below (Fig. 10.1) draws on the work of Douglas (1982b). Her 'group/grid' construct provides the basis for comparing organisational social reality. It is a useful structure because it accommodates the sense that people construct their reality through the way they work together, their taken for granted practices, and through adherence to collectively sanctioned rules of behaviour.

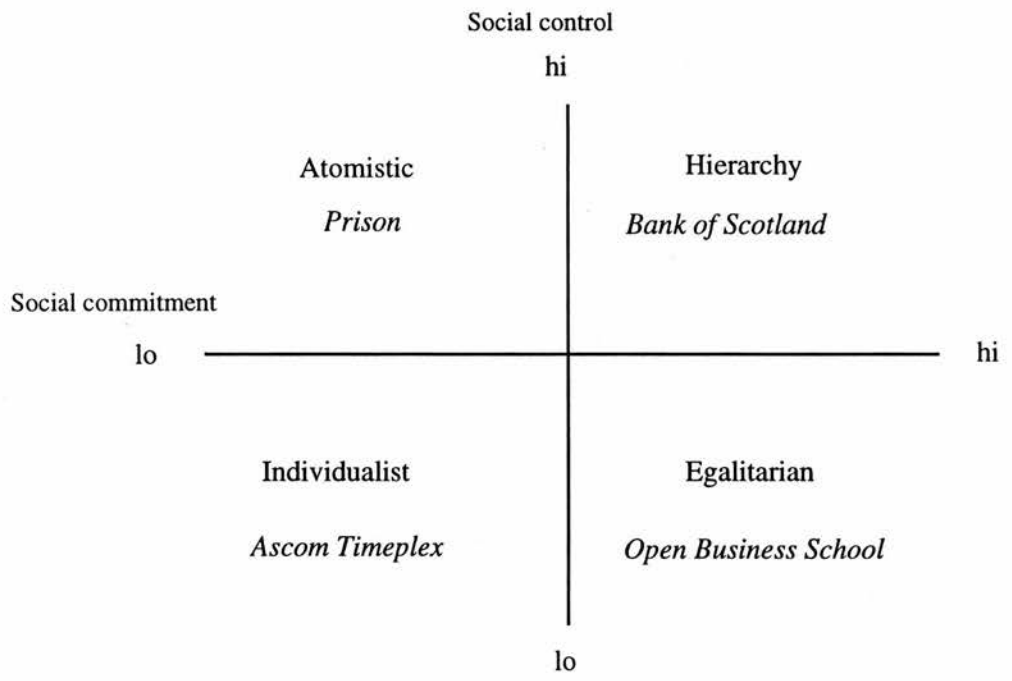

Fig. 10.1. Social choice: a typology of social realities

The degree to which people may legitimately work alone or whose contribution to their organisation depends on working collectively, influences the form of an organisation's social reality. This dimension is labelled 'social commitment'. Juxtaposed with these ways of working is the degree of constraint that rules of behaviour impose on how people work

together, rules of behaviour that the organisation's members are only dimly aware of and are taken for granted. This dimension is labelled 'social control'. These considerations produce four discernible archetypal social realities: Individualist, Egalitarian, Hierarchy, Atomistic.

10.2.2 Social commitment

This defines the importance of group membership and the extent to which group boundaries represent constraints to the free movement of individuals in and out of a group. It describes the degree of commitment that individuals give to a group, such as their functional department or the whole organisation. It is about the balance between the calculated acceptance of practices, and the internalisation of social values, norms and rules. The individual's guiding of their own actions to comply with a perceived expectation of others; the transactional process between individual and organisation.

The rules of admission to a group, and its continued support of its members, may be strong or weak, explicit and implicit, making membership more or less exclusive. Group commitment can be rooted in a variety of common concerns. The Bank's group commitment can be assessed in terms of a common pride in its ancient lineage and the common view that 'stewardship' is needed to ensure the continuity of that heritage. Staff of the Business School share an almost evangelical commitment to providing open access to education, and equal opportunity to all comers. It is the norm that staff give some of their time freely or at very low financial cost. In contrast, Timeplex's employee commitment seems ephemeral, to 'the bottom line', this months sales of budget performance, and looking after 'number one'. New people are selected on the basis of their claims to particular expertise and appropriate 'track-record'. New staff do not have to 'buy in' to Timeplex's mission or philosophy as a condition for getting the job.

10.2.3 Social control

This defines the extent of prescriptive behaviour and social control, regulation and formal controls, both within and outwith the group. Some of these 'dos and don'ts' are abstract, others more definite rules. Choice over one's actions range from 'freedom of choice' (civilian) to highly regulated behaviour (military or prison). At one end of the spectrum relationships and compliance are negotiable, while at the other end everyone knows their place in the institutional order. The degree of influence or power exerted by the organisation's socialised membership to ensure that members use their knowledge and expertise, and fulfil their commitments to the organisation.

10.2.4 Individualist

Low group commitment and low social control means that individuals are free to pursue self interest, to cross group boundaries in pursuit of establishing and taking part in social networks. They have a great deal of freedom to negotiate contracts, as is individual mobility to pursue whatever is currently in fashion for gaining influence and prestige within their informal network, among peers within and outwith the organisation. Individuals come together primarily to discuss topics that serve individual or very narrow group interests. There is much scope for individual entrepreneurial activity and competitiveness characterises relationships between groups and individuals, within and across the organisational boundary. Information and knowledge flows follow informal and social networks more than formal reporting structures. Such flows are minimally inhibited by the formal organisation/ external environment boundary.

10.2.5 Egalitarian

Whereas the Individualist social reality describes a loose 'association' of 'elements' or individuals, an Egalitarian social reality is more an association of groups or semi-autonomous constituencies (Swanson, 1969). Individual independence depends on membership of a

constituency. Commitment to a group is strong, and is more driven by that commitment than regulatory Social Control. Internal intra-group boundaries are blurred compared with the organisation/external environment boundary. While commitment to a constituency legitimates individual action, individual status is also quite ambiguous and negotiable.

10.2.6 Hierarchy

Commitment to the organisation's values and traditions is strong, with strong social control. Loyalty is prized and rewarded, hierarchy is respected. Individuals are bound securely by roles and ascribed authority. Judicial and legislative functions are exercised by one or a few executives with ascribed authority.

The constraining effect of a highly regulated work environment and strong group control produces many formal layers of managerial control, and strong internal group boundaries. The resulting internal compartments channel (some would say 'interfere' with) the flow of knowledge between compartments and between the organisation as a whole and its external environment. Social networks are much more stratified than either the Egalitarian or Individualist reality. The decision makers of this organisation seek ways of improving its links with the external environment by trying to extend control, using ordered mechanisms. As Douglas says

> some important functions can be discharged by entrepreneurial brokers of information who are not full members of the central group but who are trusted representatives, honoured for their successes in pioneering work or delicate negotiations with outsiders *(1982b: 8).*

10.2.7 Atomistic

Here the social framework is fully regulated. Like those in a Hierarchical society, people here do as they are told, and individuals have little or no group affiliation. This might be life as a manual worker in a 'sweat shop' manufacturing enterprise where union influence is nil, or life in an HRM Prison. A reality of social domination seems very appropriate here.

Attempts to manage prisons as a form of private enterprise is an innovation. One may speculate that the attempt also produces a clash of realities, resulting in anomalies whose resolution is a common learning experience for both realities. The problems of Group-4 and its contract with the Government to manage various aspects of the prison service comes to mind.

10.3 RESONANCE BETWEEN THIS FRAMEWORK AND OTHER THEMES

There is a sense of resonance between these exemplars, and ideas that have developed quite independently in different intellectual disciplines. Schwarz and Thompson (1990) has attempted a very useful correlation between these exemplars and various separate streams of ideas. Some of these reinforce or help to shed additional light on the analysis.

10.3.1 Economic transactions

Some writers have studied the economic transactional relationships between the organisation and the outside world. Williamson's (1975) markets and hierarchies, and Ouchi's (1980) 'clans' support the main thrust of each social reality. Transactions based on markets support an Individualist reality, a preference for internal transactions over markets supports a Hierarchist reality, and the notion of 'clans' supports the thrust of Egalitarian reality. Although Ouchi (1980) offers a coherent framework to account for the three types of economic transaction, not surprisingly his chosen variables do not map directly unto the social choice framework above. Care is essential in interpreting the correlation between these ideas, and further work is needed to relate the two ideas, but there is at least an impressionistic correlation between the two.

10.3.2 Rationality

Rationality is generally used to describe work organisation, typically to justify its formal structure, and decision making in terms of its members' interests. Arguably, what is 'rational'

has more to do with taken for granted ideas about how the world works than being a direct result of work organisation. Rationality is a feature of social reality. Particular work organisation configurations reflect and reinforce an ensemble of features of which rationality is one.

Further, social realities are supported by distinctive 'styles' of rationality (Wettersten, 1995). Weber's (1964) *formal* or *procedural* rationality and Allison's (1971) 'organisation process paradigm', are consistent with the Hierarchist's overriding concern with rules and roles. Following procedures will deliver acceptable outcomes. *Substantive* rationality (Allison's 'rational actor paradigm') puts outcomes first, 'the bottom line' matters above all else. How 'the bottom line' is achieved is of secondary importance. Schwarz and Thompson's critical rationality describes the Egalitarian concern with "communal and voluntaristic co-operation" (1990: 7). Both outcome and process are important. Here Allison's 'governmental politics' describes the negotiated and political dimension of rational choice, and complements the 'co-operative' perspective of 'critical' rationality.

10.4 ALTERNATIVE SOCIAL REALITIES: THREE CASES

The preceding arguments suggest that the practice of strategy is characterised by socially constructed commitments that individuals share. Understanding the practice of strategy means understanding the institutional commitments of its practitioners. This section will compare and contrast features that give a social reality its meaning and distinctiveness. It describes how alternative realities coalesce as a result of the tension between the constraining effect of a body of ideas, social prescriptions, and reconstructive effects of social interaction. The aim here is to reinforce the ideas put forward in 10.2 and 10.3, by giving a detailed account of each organisation studied.

10.4.1 Timeplex

Timeplex is a twenty year old company, providing electronic networks (products and services) to globally distributed businesses, mainly in the financial services industry. It is one Division of a Swiss based parent, and along with the parent is experiencing financial difficulty. Its products have been left behind in the competitive race, a position from which it is striving to recover.

Legitimate decisions are routinely made among participants acting more out of individual interest than as representatives of departments. Individuals are free to negotiate and enter transactional relationships with anyone, within and outwith the company, even between an individual and immediate superior. For example, Hurd talked about how he and his boss, Richard, regularly discussed how they would leave the company to set up their own networking company, how they would finance it, and that some of Timeplex's customers would go with them. Their justification was that customers invested trust in them as individuals, more than in Timeplex. There was a lot of money to be made in this business if one worked hard, so why not claim it for themselves rather than the (ungrateful) company.

At another level, the USA Customer Support leadership entered into a contract with a video conferencing system provider, involving world-wide technical support of up to five different types of system. This deal was made with minimal UK involvement, who are responsible for providing European and Middle Eastern Customer Support. Many UK staff were critical of the agreement, wondering how they were going to support five different systems. For example, who was going to pay for training the UK support engineers, and what spares would be needed and who was going to finance that.

In this and other examples one can see how managers and engineers alike are more committed to the 'exciting gamble for big prizes' (Douglas, 1982). This attitude is pervasive, implicit in the practice of strategy, taken for granted. Richard had been head hunted to conceive of, and implement, a grand plan for world-wide co-ordinated customer support. Humphries, a senior manager, saw Richard's vision in terms of the career opportunities that

he could see for himself, waiting to be opened up. He imagined himself turning that vision into reality. Richard did not have to point the finger at anyone, and say "Fred will do this bit, and Sarah will be responsible for this area". He defined the future, and it was up to the audience to realise that future.

Internal competitiveness characterises individuals' belief in the scope to shape or carve out a niche for themselves; through individual enterprise they would determine the order of things. Davis could barely disguise his belief that he could do his boss' job more effectively. After all, in his previous company he had held a more senior position than his current boss. He often shared ideas with the President of the company on how he (Davis) could really make this company grow.

The on-going tension between Sales and Customer Support is another example of this competitiveness. Sales try to show Customer Support as ineffective; that Sales can satisfy customers needs more comprehensively; that Sales would make more money for the company if it had control of Customer Support. Customer Support in turn defends the 'acquisition' attempts by showing how well it manages its budget, and how they are continually having to pick up the pieces after sales people have committed the company to unrealistic promises. The carving up of the European Support Manager's function seems to be one lost battle in the ongoing skirmishes. There is also tension between Sales and Customer Support to control the embryonic Professional Services Department. Both groups perceive it as a major business opportunity, even though after three years Professional Services is still loss making.

Those few not committed to the pursuit of glory and gain for self, like Blewitt or Oattes, complain that the organisation lacks strategy and direction. They criticise their superiors for taking what they can get out of the company. Blewitt's perspective is very probably inherited from his twenty years in the military, where he progressed in a programmed career structure. These critics fail to see that in this organisation's reality strategy is what the individual makes of it; that they are not being subjected to some form of organisational psychosis. They are apt to see Timeplex's loose integration as anarchy.

Respondents stressed the irregularities and instabilities of the telecomms competitive environment rather than its order. The competitive environment is seen as responsive to the special skills of individuals who pay attention to it. Managers and engineers move among competitors almost at will. Stubbs talked about how the industry is rich with opportunities because new products are always appearing, as well as chances of promotion in growing and new companies. There is a constant turnover of staff in Timeplex, in common with many firms in this sector. Managers and engineers justify this turnover in terms of career opportunities within the sector, the 'hire and fire culture', and the need for new blood to remain competitive. The risk of redundancy is constant, and is one of the more unpleasant aspects of working at Timeplex, but that's how things are. Anyway, the attractions of entrepreneurialism seems to overshadow such fears, in that staff are much more preoccupied with creating and exploiting opportunities. Redundancy is just one expression of the risk and uncertainty that characterises the environment.

Knowledge is traded through personal networks. It's about knowing how useful individuals are to you, personal recognition and prestige are highly prized. Routine work is subordinate to novelty. The marketability of novelty is more interesting, and tends to reflect much more on the individual that the collective, and there is considerable scope for individual initiative. Braidwood's Directory of Timeplex's global operations, and Stubbs' attempt to harmonise the company's new-product introduction procedures were tasks that they identified as needing to be done, and initiated them. No one allocated these projects to them. The Directory took about nine months of part-time effort, while the harmonisation project is likely to take much longer.

Timeplex seems oriented toward market economic transactions, where individuals freely transact with the market rather than internally. That is, many of their services are bought in via Contractors. Their management accounts, and the writing of technical and publicity literature are carried out by contract workers. Management of their fleet of company cars is done by an external agent. The purchase rather than internal development of a new management information system to replace their existing system.

There is minimal long term planning, and devices such as flow charts to order and sequence activities. Such devices may have less to do with organising the future than recording history: as a record of activities, therapy and communication, and public relations that everything is under control (Langley, 1988). The 'escalation log' where problem installations are recorded and progressed, is an example of this. Although there is a priority procedure, typically the customer that has the greatest financial muscle, or shouts the loudest gets priority.

Projects with a clear beginning and ending, with time scales of months rather than years are favoured, then move on to the next interesting problem. Cecil sees his job (Multinationals Programmes Manager) as being about offering customers solutions by 'cherry picking' technological and commercial solutions from anywhere within the company. He does this work himself, through exploiting and extending his informal network. Once the solution has been defined, he moves on, leaving his subordinate to sort out the details and administration. Cecil organises his work so that this happens. His subordinate, an engineer, chides his boss gently for not being interested in the detail, and for rushing hither and thither, but praises him for being good at manipulating the system in getting new business.

The attraction of new opportunities and the relative disinterest in the routine is institutionalised in the form of the company's 'escalation' framework. The escalation log is essentially a basket full of tedium, and relegated to routine work. It receives no special attention, ... until the unhappy customer (their new installation was still not working after months) called the President of Timeplex to demand an immediate solution or else ..... Timeplex senior managers decided that it needed a named individual to police the status of projects, to make sure that such eruptions are avoided in future. An Escalations Manager was designated (Braidwood) reporting directly to the Director of Customer Support. Braidwood was at the same time an engineer in Cecil's department.

The individual in Timeplex is expected to be dynamic, entrepreneurial, go getting. Contrast this with the Bank of Scotland where managers and engineers are valued for their conscientious endeavour, attention to cost and detail, where respect goes with good

'stewardship'. The escalation problem produced a fast fix. Learning through mistakes is natural here.

Bloor and Bloor (1982) studied the extent to which industrial scientists, in moving from academia to industry, had selected their niche or had adapted to the culture that they found in their organisation. In one organisation they found the scientist's commercial relationship with his colleagues was one of not being afraid to experiment with technical solutions. The important issue was to find a solution that worked and move on to the next deal or project. Bloor and Bloor's assessment of their industrial scientists' attitudes to risk seem equally applicable to Timeplex's managers and engineers: "it is beneficial to take risks [and] is a waste of time to cover oneself too fully against the possibility of failure, for some failures are inevitable" (1982: 97).

In Timeplex's world rewards are based on demonstrating competences in getting results, whatever it takes, and being competitive. Formulas and privileges based on heritage, such as seniority or age are minimal. When one of Davis' administrators asked him what to do with a returned modem, Davis offered him £400 if he could sell it.

While self interest reigns, the group is held together by a common belief in 'the bottom line', and the notion of market forces. This commitment is shared by its competitors. Its motto could be 'survival of the fittest', and the 'invisible hand of the market'. This is reinforced by customers' eagerness to exercise their right to choose between competing alternatives, and to demand value for money. Customers and competitors alike appear to support the principle of minimal-interference in the market place. This is apparent by the vast array of technical alternatives that come and go, the fierce price and service competition within most segments of the telecommunications and computing industries, and the constant pressure from OFTEL in Britain to break BT's hold on the British market.

Conspiracy theories abound and everyone is suspicious of threats, from within and without. From within, senior managers in the USA try to confine within the formal reporting structure, information flows about intended re-organisations. However, informal networks undermine

such attempts. For example Customer Response Centre staff in the UK and USA routinely share their knowledge and speculate about what changes are afoot, who is doing what with or to whom, etc. Through networks like this sales staff and engineers heard that at least one of their peers in the USA had received a 'confidential' phone call, offering him a position in the re-organisation. The implication was that if you did not get such a call then you were probably on the way out. Only time would tell.

Douglas would expect such conspiracy theories from an organisation with strong group commitment and weak social control, for example OBS, rather than Timeplex. She would probably argue that stronger group boundaries make passage into and out of the group more difficult, encouraging differentiated knowledge flows and internal distrust. However, within Timeplex there is a very strong boundary between Customer Support and Sales. So while the commitment to unbridled entrepreneurialism is common to all staff, that division between Customer Support and Sales breeds distrust and conspiracy theories.

In Timeplex there are very high levels of internal distrust, political manoeuvring and negotiation. Some information flow is impeded by the UK/USA geographical boundary, typically related to sales and technical issues, where 'strategic' decisions are taken in the USA, and handed down to the UK executive. The Customer Support Division is not structured in the same way, so that there is also differentiated information flows between Sales and Support. The UK Sales Director and UK based Support engineers had very different perspectives on what the current round of re-organisation was about. One thought that it was internal to the Support Division, while the other though that the whole company was being re-organised, starting with the Support Division. These boundary issues encouraged speculation about what was really going on, so that conspiracy theories remain an inherent feature in this Individualist reality.

Generally, group barriers are weak, as is group support. This is because informal networks, and a shared commitment to individual freedom to contract, weakens barriers. People come and go from Timeplex, redundancy and recruitment are regular and taken for granted. Within Customer Support, individuals like Braidwood may have two or three different

responsibilities, cutting across functional barriers, thus defining individuals as 'a network node' as much as an element in a hierarchy. The boundary around Customer Support itself is seen as contestable. UK Sales leadership take any opportunity to chip away at the Customer Support boundary, and they have had some success to-date. A European Support function was broken up, with part going to Sales and part staying with Customer Support. One respondent suggested that the reason for its break-up was 'political'.

Timeplex is dominated by an Individualist reality, with Hierarchy and some faint signs of Egalitarianism in the background. When the unhappy customer roused the President, internal protocol was observed, in that he used the chain of command to allocate the problem. Also, Hierarchy exerts influence through the handing down of decisions, and the attempts to control information flow from the USA to the UK, the 'hire and fire' philosophy, and the centralisation of R&D. There is also an atmosphere of informality and a belief that Timeplex is a meritocracy. Engineers and managers talk about everyone having an equal chance of success, recalling how quickly many of them have progressed from raw engineer to manager, or how some of them have acquired multiple responsibilities in just two or three years. At the UK head office managers and engineers intermingle, moving freely between offices.

10.4.2 Bank of Scotland

The Bank of Scotland provides clearing bank services to the whole UK community, and claims to be the first bank to offer remote banking services, and of being the first UK 'oil bank'. In 1995 it celebrated 300 years of banking practice. It is comfortably profitable.

Staff are content to rely on the existing pattern of role allocation within a complex business. They look for satisfactory hierarchical principles to guide decision making. In contrast with Timeplex staff, in BoS there is little individual freedom to transact or negotiate without reference to a higher authority. If a Divisional General Manager wanted to purchase an air ticket, s/he must get written authorisation from the Bank's General Manager. The validity of

the hierarchy principle is reflected in staff at various levels expressing the uniform view that many strategies are 'bottom up'. The Hierarchy is taken for granted.

The Bank is a much more layered and compartmentalised society than Timeplex and OBS. There are at least seven layers of managerial titles, and the degree of specialisation is partly reflected in the Divisional structure. There is considerable interdependence between the Management Services Division (MSD) and the Operating Divisions. Scope for disorder and individual independent action is strongly circumscribed by the protocol of hierarchy, formal rules of title, banking qualifications, and the pride of staff in upholding the Bank's traditions.

There is a strong belief that there are correct methods of work and if properly followed these practices will automatically produce desired results. The Bank's concern with following procedure is like a ritual to maintain purity, rather than a mechanical ritual. It is seen as necessary for establishing a 'proper' relationship with its competitive environment, in terms of its reliability, and financial prudence. As mentioned above, all overseas travel, including that by senior managers, must be authorised by the Bank's General Manager. There are procedures for project selection, lending procedures, procedures that guide financial prudence. These procedures are pervasive, covering all activities, from routine administrative to entrepreneurial initiatives. These formulae seek to ensure that all routines have been meticulously followed.

Staff do not feel restricted or somehow circumscribed by the 'the way things are'. Indeed, many describe the Bank's approach to strategy as 'opportunism', as a reference to their dismissal of the rigid strictures of corporate planning. In fact at least one Division does follow a detailed planning framework, including the publication of strategic plans. 'Opportunism' in their terms is not at odds with very regulated work practices, and group unity. All opportunities are subject to the same project evaluation and selection framework.

'Opportunism' also means identifying and pursuing ways for improving the Bank's efficiency and effectiveness. This can be seen in the Bank's preoccupation with the need for continual cost control. In the Card Services Division, there are detailed instructions and

scripts for guiding telephone conversations with customers, and formulas for measuring the productivity of every call. In MSD the notice boards carry graphs of individual departments' cost performance.

'Opportunism' must also be seen in the context of the Bank's attitude to risk. This Bank, in common with most traditional banks, regulatory authorities, and user expectations, constructs a reality where risk taking is generally rejected by the public with deposits in the Bank, and this is reflected in the Bank's attitude to risk. The Bank's Corporate Statement (Report and Accounts, 1994), restates its commitment to financial stability. Where risk is taken the Bank must satisfy stakeholders, including regulatory forces, that it can afford to suffer a loss, that it can absorb that risk. The Bank' s concern with prudence and reliability explicitly recognises that public trust depends on showing the exercise of strong control. The Bank's attitude to risk means that accepting risk goes with giving up as little control as possible.

The Bank's preferred 'way of being' is to be opportunistic in an orderly fashion, to anticipate outcomes. This means having a great deal of control. The Bank recently sent what Douglas (1982) calls an 'entrepreneurial broker', Richardson (Deputy General Manager, MSD) to spend nine months sharing knowledge with NCR, both as customer and supplier. This initiative will now continue and extend to two way exchanges between NCR and The Bank. Such regulated entrepreneurialism can be contrasted with its 'unbridled' cousin in the Individualist reality of Timeplex.

The events that led to this initiative also show the stratification of the bank's social networks. The Bank is NCR's banker, and one of the Bank's Directors is a non-executive Director on NCR's Board. At one Board meeting the NCR Chief Executive suggested that the Bank might send one of their senior people to spend time with NCR, to help NCR better understand what the Bank, as its customer, wanted from NCR.

The pattern of innovation in the Bank is less likely to be revolutionary because it does not depend on a balance of power among groups; the distribution of power is stable and not negotiable, in contrast with Timeplex. When the Bank perceived a major environmental

anomaly, such as the threat from the English banks or the Royal Bank's introduction of ATMs, it accommodated those anomalies through a considered and orderly internal change and response, with little disruption to the functioning of the company. Revolutionary change is also less likely because institutional power relations within the banking sector is largely stable and regulated. The government's initiatives during the 1980s to deregulate the sector did produce a few significant anomalies, such as removing some of the barriers to competition between building societies and banks, but even here the Bank accommodated these anomalies through changes more akin to Barnes' (1974: 86) "rearrangement ... of the overall pattern of change in science" than any "transformation" of its banking practices.

In an organisation where the combination of strong social control and strong group commitment is the norm, the pattern of innovation is more likely to be incremental, extensions to existing practice. The 'entrepreneurial brooking' between the bank and NCR will enrich rather than disrupt that process. The Bank's 300 year history is one of progressive change. For this organisation, progressive change means having a relatively high expectation that anticipated outcomes will be realised. There would be little tolerance here for Timeplex's 'trial and error' approach.

The creation of Computer Services as a Division of the bank in 1974 might suggest a radical move by the Bank, taken over the bank's long history. However, it can also be seen more as an incremental move, entirely consistent with a tradition of prudence. There is a useful parallel between the Bank's progressive development, and the progress of 'normal science'.

Barnes notes that "major cultural change can be brought about not just by the accumulation of many small deviations from routine, or extensions of routine, over a period of time, but even by activity carried out in meticulous conformity of routine" (1982: 86). In presenting his argument, Barnes feels that "perhaps Kuhn's own conviction of the necessity of revolutions arises from an incorrect appraisal of what is possible under the rubric of normal science" (1982: 86). Nevertheless, this does not rule out the possibility of major technological shifts.

An example of a major shift, from the Bank's perspective, is Home Banking, introduced in 1984, becoming Home and Office Banking or HOBS one year later, and held up by the Bank as an example of a major innovation. The Bank sought to accommodate or 'absorb' (Schwarz and Thompson, 1990: 67) the unanticipated and undesirable situation of English banks moving into Scotland. The Bank looked around for a way of retaliating, for a way of getting into the English market quickly, where it had no branches. It carefully cobbled together its available IT expertise and launched a remote telephone banking service, aimed at the English market.

There was no major investment in infrastructure, and therefore low financial risk. Investment followed on incrementally as the Bank learnt the technical and commercial implications of providing a remote banking service. It nevertheless regarded the enterprise as a risk to its reputation. The competitive threat of the English banks delivered a risk to the Bank. Doing nothing presented a greater threat than accommodating that risk. The press at the time hailed this as an innovation. From Richardson's (Deputy General Manager of MSD) perspective the Bank took an innovation lead and were the first bank to offer a remote banking service, even before First Direct, the main operator in that sector today.

Home Banking, and then HOBS represents an extension of existing technologies and knowledge within the Bank, but involved little organisational change. Financially there is no evidence that HOBS was ever a success. Its value is more symbolic than commercial, since staff cling to this experience as evidence of the Bank's innovativeness, perhaps because it supports the 'opportunism as strategy' view shared among senior staff and managers. This does not devalue any claims that along the way it has been the first mover, in some new banking service or internal process improvement. However, looking at the Bank's history any competitive advantage that these innovations gave have been eroded, at times very quickly. On the UK scale the Bank is still a small player in the competitive environment (in common with the other Scottish banks), with more localised social network than the NatWest Bank and Barclays Bank. This is reflected in the Bank being 'surprised' by the English banks coming north in pursuit of oil related business. However, this environmental change did have

a lasting effect on the Bank's work organisation, first through Home Banking, then the development of remote banking as a major feature of the Bank's operations, the Centrebank Division.

Abernathy and Clark's (1985) 'transilience map' describes different kinds of innovation, based on the interaction between internal 'competences' and 'linkages' with the external environment. Unfortunately, their 'internal' dimension dichotomises existing competences into 'conserve/entrench' and 'disrupt/ obsolete'. In relation to the Bank this seems overly simplistic. The Bank has been conserving some aspects of its banking know-how but extending others, as far as new Financial Services legislation allow, and this has been going on for most of its 300 years. The Bank's Home Banking innovation was a new technological configuration wherein "new technological artefacts are shaped by and emerge from social and organizational exigencies" (Fleck J., 1993: 27). It involved a 'rearrangement' (Barnes, 1974) of knowledge and its application to a new and constituted competitive situation. The Home Banking innovation was technologically an increment to existing competences, but the market considered it a radical innovation.

This innovation might have created a niche initially, but it has led to a whole new sector of banking services with many competitors. How Home Banking is characterised today depends on one's time frame and what rational re-construction is used. In Abernathy and Clark's (1985) framework it could be 'regular' because it is now an established technology serving an established market, or it might be 'architectural' because it has led to the development of a new market sector where competitors have evolved particular and appropriate competences for remote banking services.

Focusing on individual extensions to practice may imply that the Bank is not innovative, because those extensions are (apparently) so insignificant. However, looking at the Bank's extensions to practice over its history, it is clear that the practice of strategy has undergone major change. It has shared with its competitors, suppliers, customers, and regulators, in the development and exploitation of banking technologies. Rosenberg's historiography of technical progress offers a strong historical precedent, showing most technical change as

evolutionary rather than revolutionary. He found consensus among many writers that technical progress consists less of Schumpeter's discontinuous change and more of "a steady accretion of innumerable minor improvements and modifications, with only very infrequent major innovations" (1982: 7).

The banking industry during the 1970s was very ordered and regulated, with banks operating a cartel by virtue of government legislation. In these conditions anomalies were likely to be few and memorable. Anomalous experiences, and thus potential sources of innovation bloomed during the 1980s. During this period the divisions between banking, building societies, and insurance providers were redrawn through legislation. Most financial institutions introduced (or were forced through competitive pressures to introduce) new products (savings plans, mortgages, even loans to foreign governments). To add to the turmoil of the financial services industry there were opportunities afforded by private pension legislation, privatisation programmes, and the relaxation of acquisition rules.

Many financial institutions found the financial burden of diversity too great, and began to withdraw from traditionally unfamiliar territory such as domestic mortgages and estate agency. At the same time many of them increased their investment in IT, in order to reduce both the amount of paper and the cost of transactions. The Bank developed over the decades a significant level of expertise in IT. This expertise grew out of the Bank's concern for prudence, and constant search for ways of reducing cost. The majority of the Bank's innovations are a result of seeing cost anomalies within the Bank's internal processes.

In general one may regard the regulated environment as an extension of the bank's concern with internal order, and vice versa. The Bank, its competitors, and customers support the principle of a regulated environment, in the right of the state to do so, in what Schwarz and Thompson call "Leviathan governance" (1990: 67). While the financial services industry has been 'deregulated', relative to Timeplex it is still highly regulated. The rate of interest that banks may charge, the size of loans they may offer, and the relatively high level of liquidity and secure assets they are required to maintain are not driven by 'market forces' but by direct Government control through The Bank of England.

10.4.3 Open Business School

The Open Business School provides distance learning management courses, and is perhaps the first organisation to apply the Open University's distance learning innovation to the management education field. Although market leader, the OBS now shares the distance learning market with others. Perhaps more threatening is that other innovations in the provision of education mean that OBS is competing with a wider range of options available to the student. Its own definition of distance learning, which has for 30 years guided thinking (both within and outwith the University) is being overtaken by an even broader definition. There is for example the Southampton Institute 'MBA on the Internet', and the Heriot Watt open ended distance learning MBA that leaves students not only to study at their own pace, but also to take the exam whenever they are ready. These challenges are being facilitated by regulatory changes in the provision of higher education that encourages greater competition.

An assessment of OBS's social reality demands more than a passing reference to its parent, the Open University, because of the bond between the two. The Open University was a Labour Government sponsored innovation. It was an assault on privilege and class that in Douglas' terms sought "to reject pointless rituals and to preach direct to men's [sic] hearts" (1987:7). From its beginnings in the early 1980s, OBS has had to pay its way. It shares most of the high ideals of its parent, except that it charges market rates for its courses, and this reflects the pragmatic demands of operating in a competitive environment.

The Open University, like the Bank of Scotland, is characterised by procedures. Unlike the Bank many of these procedures uphold the egalitarian spirit and factionalism, rather than extending ascribed hierarchy. For example, the equal opportunity principle is enshrined in formal selection procedures, and written and audio visual guidance information for staff and students. This continuous output of information and prescriptions is institutionalised and manifests itself as part of the structure of the Open University, and includes the 'Equal Opportunities Unit' and 'Faculty Equal Opportunities groups'. These groups may be seen as

forming part of the Open University's "strategic rationale" (Fincham *et. al.*, 1994: 133), reflected in the 'Open University's Equal Opportunities Strategic Action Plan'.

Team effort is highly regarded. Although the Open University has formal procedures for everything, these prescriptions are generally subordinate to group action. There is a high tolerance of deviant behaviour among the academic community. Individual freedom is negotiable and determined much more by group commitments than any regulatory mechanisms. For example, at least one Faculty has 'gone its own way' on alternative ways of producing course material, rather than wait for the Open University's senior managers 'to sort themselves out'.

While deviance from prescription is tolerated, there is less tolerance of deviance from group norms. Thus the first Director of the embryonic Business School, and his successor the first Dean, Thomson, arguably contributed to their own demise through failing to recognise that negotiable freedom does not mean unfettered freedom, but a freedom given by colleagues through consensual decision making.

The current Dean's popularity has more to do with staff, peers, and the University 'Godfathers' perceiving him as a team player, than any claims to a distinguished academic career. His social network is probably less connected with funding and validating bodies than Thomson's, nor is he a Professor. However, the University collective seem to feel that the Open Business School's credibility is secured, through the efforts of his predecessors, and that they want a return to consensual decision making.

Asch, the current Dean, has invested a lot of time telling staff about his strategy of consolidation. This creates a feeling of direction and so far they remember it. The creation of more formal committees and 'Centres' of excellence are meant to circumscribe the freedom of future Deans.[2] This represents a strengthening of internal group boundaries, and was a reaction to what many academics saw as Thompson's individualistic and favour ridden

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[2] 'Centres' are career development homes for groups of like minded academics and administrators. Centres would be a forum for developing personal or collective agendas, and for discussing personal development with the 'Centre Head'.

approach. Although Asch's election manifesto promised to establish such a mechanism, many staff initially resisted joining a 'Centre', seeing it as a layer of managerial control. Compartmentalisation as a way of strengthening group support was acceptable, but not as a way of greater regulatory control. In Bloor's (1982: 142) terms these 'Centres' are "secondary elaborations" to enhance the protection of the Open University's Egalitarian reality.

This new pattern is sufficiently distinct from Thomson's to satisfy staff that here is a strategy. Only history will tell whether staff eventually substitute 'stagnation' for 'consolidation' and again complain about the lack of strategy. Will pockets of dissent grow into a revolution that will remove Asch? The University has a social prescription in the form of 'Dean by open election'; the Dean's post is an elected one, and lasts for five years. This mechanism supports group commitment, and has the effect of defusing much of the destructive force of a revolution.

Douglas (1982b) suggests that an Egalitarian culture carries with it some scapegoating. For example, Thomson was criticised for his management style and for overexposing OBS, and a slowing of growth. He lost the leadership election to Asch. Although the right to 'study leave' is enshrined in the Open University's terms and conditions - in other words it is part of the University's social prescription - individual academics feel a strong tension between taking their study leave and showing commitment to writing for course teams. Those taking the study leave risk being marked as not being team spirited and unsupportive. At the same time the School's research standing depends on the sum of individual publishing records. Many academics do not want to do research, and may cite heavy course teaching and writing workload as a reason for not taking study leave, and also question the commitment of others who do so. It is as if they are jealous of each other's preparedness to take study leave.

There are also strong compartmental lines drawn (not hierarchy) in terms of secretaries and administrators, Course Managers, Academics. Within these groups pay scales, benefits and titles, although clearly defined are often argued over. Unlike the Bank of Scotland, decision making is not based on Hierarchy, but on the interdependence of groups, expressed as a

myriad of committees and teams. Staff are very conscious of a group identity, a sense of shared expertise, and a keen appreciation of the OBS and University's boundary with the external environment.

Strong boundaries are suggested where a differential of expertise claims and practice exists, between the outside and the inside, even within the same industry. The Chair of one of the Business School's courses, talked about being 'trapped' by the peculiar characteristics of the Open University system, compared with a conventional university. Another senior academic remembered being told by a member of staff that it takes about twelve years to be considered an established member of the organisation. He had only been in three years at the time. The concerns expressed by the Chair, and the experience of the senior academic reflects the feeling of most staff, that of a strong sense of identity, a strong differentiating boundary between the outside world and the Open University.

While procedures and formulae reach every facet of working life in the Bank of Scotland, staff in the Business School enjoy significant freedom within the very broad parameters of the School's declared research and teaching interests. In contrast with the Bank of Scotland, there is no comprehensive analytical mechanism for screening and selecting new projects. A group of academics can band together to develop a course around a subject that they consider to be interesting, and lobby individuals and the School Board to support the new course idea. Under Thomson, looking in from the outside, there was an impression that creative output was booming. For those inside the Business School it was problematic in that resources were being spread increasingly thinly, and could not keep up with the creative output.

While all courses reflect academic interest, there are many that do not make economic sense, and for OBS this is essential. Courses that generate income is a feature that distinguishes the Business School from the Open University. Despite arguments about market forces and appeals from the Dean (Asch), many of these uneconomic courses still exist. This freedom to create, the plasticity of obstacles, and the relative subordination of rules to group commitments controlling all aspects of behaviour, is shared with Timeplex.

The practice for new academics joining OBS, including Teaching Associates, is that they find their own niches. Although Teaching Associates have mentors, what directions they develop in, or which courses they contribute writing for, is their decision. A new academic will certainly have been recruited because of their achievements and interests, but they exercise considerable control over their own assimilation as they adjust to what they find, and existing groups following particular interests adjust where there seems to be some common ground with the newcomer. In contrast, staff joining the Bank do so to fulfil a predefined and largely circumscribed role. Timeplex staff join to fulfil a particular function, but once in has considerable scope to shape their role.

There is also a differential between the Business School and points of contact with its parent. Relations between OBS's executive decision making body and other groups within the University seems to have generated feelings of inequality in terms of financial transactions and the flow of knowledge and ideas, that one side was gaining at the expense of the other. For example, some regional offices complain that the Business School is making unreasonable demands on their resources, while the Business School's central staff suspect some regions of being obstructive. The Business School cannot agree with the University on a common 'resource flow model' that describes the Business School's financial contribution, nor on how to measure the School's overhead allocation from the University. These tensions, while they may produce some heated and defensive discussion, also force the parties to re-think practice. The University Senate regards the Business School as a valuable source of learning, albeit a deviant. Equally, the Business School, with one eye on the direction it wants to go in, and the other eye on its knowledge of how its parent works, pulls the University in unfamiliar directions.

In his sociological analysis of 'patterns of life' and how each pattern deals with anomalies, Bloor suggests that an Egalitarian social life cannot support diversity of world view.[3]

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[3] In his attempt to elaborate on Wittgenstein's notion of 'language games' and 'patterns of life', Bloor (1983) adapted Douglas' 'group/grid' scheme to link distinct 'patterns of life' with particular strategies for dealing with anomalies. Although Bloor seems to be focused on the sociology of scientific knowledge, it is written in an 'open' style that allows interpretation in other disciplines.

> The same themes will be reiterated and the same ideas applied time after time. Accepted pieces of culture will become surrounded by a high wall of protective definitions and secondary elaborations. The result will be that all parts of the cosmology of such groups will resemble all other parts, resonating with one another and reinforcing the sense of unity *(1983: 142)*.

Bloor's observation seems true, to a degree, with respect to the Business School. A good example of this is the foundations on which the Open University stands. The University has always expressed a commitment to open access education through distance teaching technologies, and an equal opportunities philosophy. In more recent years the equal opportunity pillar has been elaborated, partly due to changing societal attitudes and partly due to a desire to push back its own frontiers. As mentioned above there is a small team of staff dedicated to the generation of material; memos, standing orders, case studies and guidance notes, leaflets.

While a few staff (typically part-time) feel that the expression of this commitment is 'over the top', without exception all staff subscribe to the University's commitment. The University's recruitment and promotional literature present this educational philosophy as a distinguishing feature. Disabled job applicants can receive application information on audio cassette, large print, or computer disk. Summer School locations are selected partly on their facilities for disabled students. Part of the welcoming address given to students attending Summer School is a warning about discrimination and harassment of any kind.

However, "secondary elaborations" do not necessarily support all parts of the Egalitarian social world equally. The actions described above support equal opportunity, while the creation of 'Centres' discussed earlier, will strengthen academic research and teaching. In any contest for resources these two elaborations may come into conflict. There are other areas where the sense of unity is being strained. The Business School charges market rates for its courses, rather than supporting courses through tax payer subsidy. The Business School recognises the notion of 'paying customers', and this creates a search for appropriate behaviour within the Business School. Practices within the University, including those shared with the Business School, do not recognise the subtle difference between the existing practices of administering students' needs and that demanded for supporting 'paying

customers'. The unity of view is fragmenting. Interestingly, The University's social reality contributes to and adjusts to, such fragmentation. In an important sense, and contrary to Bloor's (1983) view, Egalitarianism *supports* diversity.

The pattern of innovation in an organisation dominated by an Egalitarian reality is predicted to be periods of normal strategy interrupted by revolutionary discontinuity (Bloor, 1983). Increasingly during the last two years staff have viewed developments in the external environment as threatening the supremacy of its distance teaching technologies. Internally this has generated much heated debate and division. An increasingly fragmented range of views are emerging about the nature of the threat, and how the University should deal with it. A Senate Committee, cross-faculty and 'within-faculty' committees have invested considerable time and energy, gathering information, disseminating it, and making proposals for action. At the same time at least one Faculty has been experimenting and implementing their own responses, distrustful of the University's ability to move as quickly as it feels is necessary.

Some see no need for any significant change, which seems to mean that the University should seriously look at adding CD-ROM capabilities. Others are suggesting the need for radical change, putting forward ideas that many conservatives do not understand and even feel threatened by. Many would like to see the University develop its technology of education, like developing explicit methodologies to deliver 'learning to learn' rather than 'distance teaching or learning'.

According to Bloor, these external threats leading to internal disorder can be understood as responses to anomalies (1983: 142). Such anomalies will accumulate and may lead to crisis. Revolution will depend on the balance of power between the relevant groups. Bloor predicts that "the revolutionaries might win and sweep away the old guard. They will proclaim a wonderful new beginning and, for a while, all will be well. Then the whole pattern will repeat itself" (1983: 142). While Bloor sees homogeneity as a central feature of an Egalitarian scientific social life, the Open University's social life is better characterised as heterogeneous. Furthermore, the defining limits of revolution is problematic at least in the

case of the Open University or the Open Business School. Such definition depends on the choice of time scale and what substantive changes count as revolutionary. In addition, there seems scope to conceive of different kinds of revolution, for example those within the social reality, and those from one social reality to another.

The power balance has tipped in favour of the University central planning function. It has allocated £10M to support INSTILL (Integrating New Systems and Technologies in Life-long Learning). "The Open University is taking on 33 new staff in one of its largest recruitment drives since it was set up just over 25 years ago" *(Times Higher Education Supplement, May 19, 1995: 2).* It is not clear how INSTILL came into being. For example, to what extent it reflects the views and findings of all those committees, and how conflicting directions were resolved. The initials of the acronym do suggest a very broad church, that there is something here for everyone. In this respect it seems unfair to talk about a balance of power. Rather, preferences have been expressed. Some ideal standard has not been applied, nor have groups fragmented to the point of everyone doing their own thing.

While a longitudinal study of the University's development might shed more light on Bloor's proposition about revolutionary change, it is clear that there has been internal disorder over the future of the University. In an important sense the OBS evidence suggests that this 'disorder' is an inherent feature of the Egalitarian social reality. This social reality is sustained by the tension between order and disorder, between the fluidity of Individualism and the orderliness of Hierarchy.

Nevertheless, there is increasing tension between a pull toward Individualism from OBS, against a pull toward Hierarchy from the Open University. Within the Business School academic freedom to create seems to be under increasing scrutiny, and administrators are increasingly under pressure to ensure that academics work within budget. It is also a tension between a justification based on respect for history and elaborated social prescriptions and procedures, and a justification based on the freedom to generate new knowledge and teaching practices. The first can regulate creativity and bring status differentials, while the second can dissipate resources through extreme factionalism.

There are various tensions in the education sector, but one characterisation revolves around freedom of institutional choice against regulatory governance. For example, the current government would like to see Higher Education (HE) institutions become financially independent while achieving measurable academic standards. Traditionally the institutions wanted funding and the right to set their own academic standards. The government's programme is redefining 'the way things are'. Many institutions are keen to generate their own income, and to have their academic quality compared with others.

While the government has initiated the change, leaders in the H E community have played key roles in the shape of the new environment. For example, the two independent quality assessment bodies have reduced to one. The environment continues to be shaped by the different interests of government and the H E community, and the learning that usually accompanies an evolving situation. The amount and process of debate (sometimes heated), highlights an Egalitarian spirit in the H E sector generally. There is a shared concern with quality, a fear of creeping inequalities between institutions, in terms of knowledge, wealth, and status. Its principles are more in tune with what Schwarz and Thompson (1990) call 'Jeffersonian governance' (ideal socialism, or parliamentary or referendum democracy). Disagreements between the H E community and the Government are rooted in a failure to agree on what the goals of HE should be, and what the problems are, and what is an appropriate framework for moving forward. The Government's notion of 'consultation' may fall outwith the HE expectation of 'Jeffersonian governance', so that a clash of realities remain.

10.5 GENERAL DISCUSSION: DRAWING COMPARISONS

10.5.1 Introduction

The framework provides a means for systematically comparing different kinds of strategy practice and patterns of innovative behaviour as socially constructed realities. These realities yield alternative guiding principles and assumptions for sanctioned behaviour "that are also

used for judging others and justifying [oneself] against others" (Douglas, 1982b: 5). They describe the assumptions that tend to underline "the natural order, and yet which, since we distinguish four kinds of natural order, are not at all natural but strictly a product of social interaction" (Douglas, 1982b: 5). These natural orders are stable. Individual organisations are not a jumble of choices and preferences, moving freely and collectively from one reality to another. All decisions are framed by the existing practice of strategy, which in turn reflects a commitment to a package of assumptions and social prescriptions about how to behave in the organisation's environment.

A number of more specific observations may be drawn from the foregoing analysis, regarding differences in the practice of strategy: forms of collective control; taken for granted strategic rationality, the nature and scope for change; boundary management within the organisation; individual mobility and social reality. These differences are not exhaustive; they highlight that various features of strategy practice are discernible rather than definitive; they give a sense that social reality is plastic and developmental, while at the same time shaping choice and reinforcing existing practice.

10.5.2 Collective control

Organisations to the right of the framework (the Open Business School and the Bank of Scotland) tend to have strong control over the behaviour of its members, demanding conformity on pain of expulsion. Those toward the top of the framework, such as BoS and Prison, are least able to perceive alternatives. For them "the situation of being closely controlled and insulated from free social intercourse stabilises a perception of having no options" (Douglas, 1982b: 6).

Increasing or relaxing the criteria for entry to the organisation results in more or less distinct compartments. The flow of ideas and knowledge may depend on personal networks, as in Timeplex; or a mixture of personal networks and group sanction, such as OBS; or be highly regulated, as in BoS. When the Bank's 'top management' 'empower' (the Bank's term) their

staff but still retain control, they are reinforcing and extending hierarchy through 'responsible autonomy' rather than 'empowerment'. While many ideas are 'bottom up', in the interests of being efficient and prudent, higher authority must be given before any commitment or contract can be entertained. As Douglas says, "to open small gates on control desensitizes the control centres to flood warnings. Hierarchy once installed develops self-reinforcing moral arguments that enable more unequal steps in status to be tolerated" (1982b: 6).

Decisions to give up control of both content and process results in separation, a loosening of the regulatory chains that hold the organisation together. This tension between more or less control describes the relationship between OBS and its parent the Open University. Many in the Open University would see OBS as pulling toward Individualism, while those in OBS would see the Open University as pulling them toward Hierarchy.

The Individualism of Timeplex and the Egalitarianism of OBS, have in common the right of individuals to pursue their particular interests. They differ in the form of socialisation necessary for doing so: loose integration of individuals or individual autonomy granted by group sanction. The reality of both OBS and BoS share an intolerance for Timeplex's unbridled Individualism as a basis for choosing alternatives. They differ in the degree to which the force of regulatory mechanisms guide choice.

10.5.3 Strategic rationality

Strategic rationality refers to both the interpretation and expression of problem–solution judgements. As Fincham *et. al.* noted in their study of IT development and implementation in the financial services sector,

> strategic rationality is not just a way of interpreting problems .... If an expert group is to sustain claims to control an area of work, it must be able to substantiate its diagnosis of the problem with solutions which make sense to an audience of powerful groups within and outside the organization – solutions which, in some agreed sense, actually work *(1994: 146).*

The strategic rationality of each social reality comprises an inexhaustible ensemble of issues, including: attitudes to risk and uncertainty, preferred way of organising, attitudes to learning,

ideas about what constitutes fairness, preferred form of economic transaction, preferred form of governance.

The attitudes to risk and uncertainty of the three organisations differ, seeming akin to Schwarz and Thompson's proposed categories for explaining how policy makers, like government bodies, deal with technological risk: anticipatory, opportunism, resilience (1990: 105). In this respect the Bank may be characterised as 'anticipatory'. Its members like to prepare for every eventuality, and this is built into all of its methods and work organisation. The mainframe computer in MSD (the heart of the bank's centralised processing network), is fully backed up, in a bomb proof room. In designing its IT facilities, managers considered the possibility of a bomb dropping on the building and the damage such an event would do to its capabilities!

In contrast, Timeplex is characterised as 'opportunistic'. Cecil, Humphries, Hurd, Davis, and most of their colleagues always keep an eye open for the unexpected. Sticking their necks out makes the adrenaline flow and is often rewarded. The Business School's members were more critical or 'resilient' in their risk taking attitudes. They do not go out of their way to "court danger" (Schwarz and Thompson, 1990: 105), but equally, prescriptive social control applies minimal constraints on the evaluation of options.

Anomalies present risks and opportunities for innovation, and each organisation handles them differently (see 8.4.7). Timeplex staff seize them eagerly as opportunities to demonstrate substantive outcomes, wherein trial and error with its attendant risk of failure are taken for granted. The Bank through its ordered way of life sought to anticipate anomalies, and seemed to put a premium on accommodating or absorbing those anomalies within its existing order. Anticipating external anomalies remain feasible through the professional banking social network, co-operative relationships with some competitors (such as between the Bank of Scotland's VISA and Barclays Bank VISA), social relations with financial regulators, and the formal role on the Boards of many customers.

The OBS membership seem to engage in prolonged debate and consideration of its options, including evaluations and implications of different future scenarios; what Schwarz and Thompson might call the "trial without error" of "critical rationality" (1990: 66). Examples include the myriad of advisory groups, committees, sub-committees, and working groups that spent about two years investigating the University's options leading up to INSTILL (see 6.6.5), and the central place of future scenario building during the Business School's annual 'away days' strategy meetings (see 6.5.2).

Division of labour, or specialisation is a differentiating mechanism that increases the scope for innovation, and paradoxically, increases the scope for routinisation of tasks. Specialisation also puts a greater burden on the need for integrating the resulting diversity. The Bank is the most stratified and compartmentalised of the three organisations, and it uses a number of discrete mechanisms that could be described as integrative: 'entrepreneurial broking', annual non-decision making senior executive get-togethers to discuss fashionable areas, and monthly management meetings. Burns and Stalker's (1961) 'mechanistic' organisation seems to captures the sense that the Bank enjoys an ordered relationship with its competitive environment.

Specialisation among the academic community of the Business School rests with the individuals who are expert in their particular field of interest. The administrative and managerial members are more 'interchangeable' but tend to work with particular academic teams because there is a general acknowledgement that this maintains continuity of social relations and administrative knowledge bases. Informal networks and committee forums are critical to the development, transmission and exploration of innovative problem-solution configurations.

Timeplex's division of labour seems much more fluid in comparison to the other two organisations. Customer Support engineers and managers, for example, are encouraged to move from one responsibility to another, or take on multiple roles, on the basis of both demonstrated technical and commercial competences, and a willingness to be enterprising. Timeplex's approach to dealing with the fiercely competitive and technologically dynamic

telecommunications environment adds new meaning to Burns and Stalker's (1961) 'organic' form of organisation. Davis had no hesitation in offering one of his administrative staff £400 if he could sell a returned modem. Strategy practice comprises significant individual autonomy and reliance on informal networks within and outwith Timeplex to express and interpret innovation opportunities.

Strategic development is not guided by 'make or buy' decisions. Rather, while such considerations do inform strategy practice, it is the 'thought collective's' preferred style of economic transaction that guides practice (Fleck L., 1979). Timeplex's broad commitment to market transactions in both the labour market and in its own competitive relations; or the Bank of Scotland's commitment to the in-house development of IT technologies, is not the result of managerial dispassionate economic evaluations of 'make or buy' strategic alternatives (see 9.2.4).

10.5.4 Plural realities and strategic change

As outlined in this chapter, there are a discernible and limited number of social realities. Each socially constructed reality features a distinctive style of reasoning, based on an inexhaustive and largely complementary range of taken for granted ideas. Each alternative reality, taken as a whole, appears to be incommensurate with others, in that their features cannot be measured against some common standard, and these features have meaning only as part of a particular reality. For example, they do not have more or less of 'rationality' relative to each other. Rather, embedded in these social realities are alternative 'styles of rationality' (Wettersten, 1995). Wettersten argues that we should accept the possibility of different rationality styles and seek to integrate them, rather than try to evaluate alternative rationalities as being more or less developed. Different styles of reasoning produce "new interesting problems and permits reconciling differences better than [trying to banish alternatives to] the absent unique standard" (1995: 87, 89).

While these social realities appear incommensurable, it does not mean that an organisation cannot be host to more than one at the same time, or that there is no scope for particular features of a social reality to develop in particular directions. This plasticity can be seen in the on-going tensions between a growing Business School and its much more mature and stable parent, the Open University. While they differ in important ways, they are held together by a common commitment of providing open access to higher education. Staff working in these two organisations, engaged in conventional activities, are unconsciously committed to a common social reality. There is little chance in the two becoming alien to each other while they have this common commitment.

However for an organisation to substitute one social reality, taken as a whole collection of features, for another archetype involves a 'revolutionary' transformation (Kuhn, 1970) or 'alternation' (Berger and Luckmann, 1966: 176). Its membership must give up all that is taken for granted for another set of values, norms, beliefs, expectations, ... It is like changing from a taken-for-granted National Health Service (NHS) as a commonly owned resource insulated from financial considerations, to becoming an organisation that must justify its existence against market testing and financial performance criteria.

Moving from one group of generalised expectations to another, (switching social reality) is also a source of innovation. Fundamental changes to the NHS are throwing up many interesting problems from which the private sector is learning. NHS managers and clinicians are also interpreting private sector recipes in new ways. How the transition unfolds may be anything from incremental to revolutionary, and its nature will depend on the on going interaction between the constructed unfolding of users' understanding of what they want, what is perceived as achievable with any given human and financial resources, the interests of competing providers, and whether existing technologies afford multiple developmental directions. This strategic change from one reality to another is not the same as change within a given reality. Strategic change, whether revolutionary or incremental, does not necessitate a switch of social reality, from one 'metaphysical paradigm' to another (Masterman, 1972).

The Business School has experienced at least one revolution, reflected in the change of Dean from Thomson to Asch. The possibility for such change is institutional in that the Dean holds an elected office and change can to some extent be anticipated. The new Dean was elected on a promise of sweeping changes to work organisation, decision making, a new emphasis on research in opposition to the previous emphasis on teaching, and the introduction of a 'consolidation' strategy for OBS in place of the previous aggressive market development strategy. The change was immediate, with the outgoing Dean accepting a new role in a committee studying Information Systems and Information Technology strategy, one committee in the Open University's archipelago of committees. There were now different people in key positions, and 'practice and discourse' changed accordingly. There was "a rupture in the subjective biography of the individual" (Berger and Luckmann, 1966: 179) so that individuals would reflect on their experiences during Thomson's reign as if it were the bad old days. For example, they would say that "then there was confusion, but now we have order". Over the long term these changes of leadership and all that goes with them may look insignificant, as small steps or incremental changes in OBS's history.

Timeplex has experienced strategic change that is both revolutionary and incremental, depending on one's perspective. The change was incremental in that their acquisition by UNISYS and subsequent sale, was akin to the experience of a predator slowly but systematically sucking the life out of its prey and leaving it for dead. Investment in new product development was stopped and productivity of the existing business was maximised. Change was at the same time revolutionary in that before the acquisition Timeplex was a significant competitor in its sector, and after the experience with UNISYS which lasted about five years, it was struggling to survive. Timeplex went from being the major part of the enacted reality of its sector to being incidental to that sector's development. The amount of erosion of its legitimacy among customers is reflected in the label 'steam driven products' still being applied by customers (see 4.2.4). There is no evidence that Timeplex was ever anything else other than an Individualistic social reality.

Even obvious upheavals do not mean that social reality is being reformulated. Rather it shows the plasticity of, and scope for innovation within a given reality. The Business School feels that it is at a cross roads in the development of distance education, and as noted above has spent the last couple of years researching and evaluating different scenarios. Consistent with its strategic rationality, OBS has now started implementing an approach that seems designed to encompass as much of their technology's interpretive flexibility as they can conceive of, by recruiting expertise to cover a broad range of possibilities. Timeplex is hurrying from 'steam driven' modems to Advanced Technologies (AT), 'trying to come from behind to being in front' within eighteen months. It is trying to do this as fast as possible, recruiting and firing staff, further re-organising, and promising both themselves and customers overly optimistic availability. Change within Timeplex is so incessant that new work organisation schemes overtake preceding ones before they are completed. The Bank has been moving from counter based to remote financial transactions, and turning counter services into sales operations. Compared to Timeplex, its transition is relatively smooth, ordered, and incremental. Of the three organisations, the Bank is moving incrementally, Timeplex is trying to change in a hurry, and the Business School is trying to move forward in such a way as to accommodate any potential revolution.

10.5.5 Boundary management

Political arguments may be about whether group boundaries should be tightened or relaxed, and about the need or not for more rules. These discussions and arguments are justified in terms of perceived demands of the external environment. Many of the Bank's Divisions are in a constant argument about the extent to which they should control their own Management Information Systems (MIS), and about centralised versus distributed data processing. They argue that being customer responsive means having control of these resources. Some Divisional managers would like the right to choose between the internal MIS - provided by Management Services Division (MSD) - and external competitors of MSD. Others accept the veto on such choices as necessary to support an internal MSD. However, there is some

flexibility in the veto. One Division has bought in software because MSD cannot offer a cost effective equivalent.

Timeplex Customer Support and Sales are constantly arguing about redrawing the boundary between them, as if it were something that is negotiable. The protagonists claim to be better placed to serve the customer; from their opposing positions each side feels that they hold the 'natural' vantage point. Arguments rage among the Open University's Faculties about how income and expenses for teaching and research can be separated; arguments that are framed within the resource flow model debate. The Business School points to its own performance in the market place as evidence that it should have greater control over the distribution of its own income within the Open University. There are wider debates about how to support innovation: a tax on Faculties, or central control of funds distribution, or more autonomy for Faculties, or ...?

These arguments about where group boundaries should be drawn are attempts to effect competing interpretations and expressions of strategic change. In the process practitioners construct an innovation space, whether or not the argument is resolved. The constant threat to each group's competitive scope and political legitimacy creates space for innovative problem–solution configurations. Innovation (of which projects are a crystallisation) are thus constituted, and build on Fincham *et. al.'s,* observation of innovation projects in the financial services sector:

> innovation provides a critical juncture for the negotiation and reconstruction of the sector, whereby preconceptions and alliances may be challenged, and new avenues of knowledge deployment and occupational mobility opened up *(1994: 133).*

In this reconstruction each argument is presented as a "strategic rationale",

> comprising assumptions about outcomes, benefits, and drawbacks, and is the basis for economic and technical justification. It reflects the mobilization of arguments about the significance and utility of special knowledge for the success of an organization as a whole – that is, the adoption of a discourse about strategy *(Fincham et. al., 1994: 133).*

The outcome of some of these arguments have short-term consequences, while others have more long-term implications. While the Bank's reality may drift a little by relaxing or tightening group commitment, or regulation, it will remain fundamentally Hierarchical in outlook. Resolution of the Bank's MIS and IT challenges, or the Customer Support versus Sales issue in Timeplex, does not undermine the stability of the underlying natural order. The justifying arguments and ideas that characterise Timeplex as operating in an essentially Individualist reality are not challenged by internal arguments about where the group boundaries should be drawn.

10.5.6 Individual mobility and social reality

For the Bank and the Business School to swap realities, their respective membership must adopt in its entirety the other's social constructions, for what they want to achieve. Meanwhile, the continuity of the existing natural order is maintained by reference to the principles that support the present social construction. As Douglas says,

> while there are always short-term shifts of opinion, there are certain social choices which have long run effects because they afford tangible rewards and enlist intellectually convincing moral arguments. People who have banded together under a certain rubric or constitution will tend to coerce one another increasingly to develop the full implications for that style of life, or go to all the trouble of mustering support for an alternative *(1982b: 5)*.

Further evidence of a collective drive for continuity of the existing natural order can be seen in the selection of new staff. In most organisations selectors look for evidence that the individual is like minded or can become so. Continued employment with the organisation depends on committing one's way of thinking to harmonise with that of the organisation's membership. The penalty for abandoning that commitment is accusations of failure and being encouraged to leave the organisation.

For both the individual and the organisation, the theory suggests that different "intellectual strategies are useful for survival in ... particular patterns of social relations" (Douglas, 1982b: 7). At the individual level, the competition inherent in the Individualist environment is not to everyone's liking. Those who stay may find themselves pushed into a 'siding',

where options and scope for individual initiative are restricted, perhaps a minor internal administrative function. In effect into Atomistic subordination.

Others, finding the internal competitive relations overbearing, may leave to find a home where scope for individual entrepreneurial activity is still high, but where group commitment provides support. They may be attracted to the Egalitarian way of life. Equally some individuals may find the group commitment demanded of the Egalitarian environment stifling, and be attracted to the unrestrained individual freedom offered by the Individualist world. Those moving from a Hierarchical reality to the Individualist world are likely to feel frustrated at the lack of order, and absence of overarching strategy. Then there is the new leader who brings their Individualist baggage to an Egalitarian group. This group is also likely to feel frustrated, and complain about a lack of strategy, but this time that frustration is about the inability to influence strategy because of the Individualist overlay.

Complaints about the lack of strategy and direction were voiced by a minority in both Timeplex and the Open Business School. In the former this was expressed by individuals who wanted more structured and visible decision making. One such is Blewitt, who had spent the previous twenty years in the Armed Forces. In the latter case it meant a plea for less Individualistic leadership from the Dean. These concerns are also about the extent to which group commitment should be strengthened or relaxed.

10.6 CONCLUSIONS

This chapter has shown that while organisations are economic units, they are at the same time social units. Each social unit is host to a cocktail of social realities, although one tends to be dominant. Social reality is not bounded by any formal organisational boundary, but is constituted of social relations that include customers, suppliers, competitors, regulators, and other stakeholders, much like L. Fleck's (1979) 'thought collective'. The dominant social reality is different in each organisation studied, and is not a product of organisational design.

It is as Barnes observed of 'normal' scientific practice: "alternative modes of conventional activity and judgements are not determined by independent authority" (1982: 64).

Each social reality describes a bundle of features that separately mean little, but together give meaning to the way individuals behave. Individuals are not lone atoms, but socialised beings, with a commitment to one or other social institution. Individuals carry a piece of a social jigsaw, and strategy practice, while purposive, involves many decisions being routinely and unconsciously made through a taken for granted strategic rationality. Conflict within organisations may be the result of different institutional commitments bumping into each other, like the tensions between OBS and the Open University, or between the outward facing Operating Divisions of BoS and their internal relationship with the inward focused Management Services Division, or the arguments currently raging over 'mad cow disease'.

The 'social choice' framework presents a qualitative and useful way of comparing and contrasting the practice of strategy across the three organisations. This is not accidental. The framework was adopted because of its explanatory value in social anthropological settings that, while different from organisational settings, share the sense that the inclusiveness of practice and social reality do vary in distinctive ways. This distinctiveness exists in the practices and beliefs of Benedict's and Douglas' primitive communities, and the knowledge claims within Fleck's and Kuhn's scientific communities (see ch. 7). The framework highlights the complexity and sociality of 'choice', and give a flavour of its inaccessibility to practitioners. It is as Douglas suggests:

> [In examining] the principles of individual choice and conflict of rights we have no way of considering the effect of institutional forms upon moral perception. Yet something about institutional forms is generated by elementary choices and the resultant institutions incorporate judgements which reciprocally influence further perceptions of choice. Once any of these elementary choices has been made, it entails a package of intricately related preferences and secondary moral judgements*(1982b: 6)*.

The notion of a socially constructed reality describes individuals and their relationships with and within a relevant community. The concept shows that when practitioners appeal to commonsense and rational judgements as the basis for action, they are invoking a

constellation of knowledge claims, rooted in taken for granted expectations and beliefs, heritage, and experiences in the 'here and now'. Kuhn's (1970) practitioners never get nearer to some universal truth. When there are too many exceptions to the rule, they leap from one set of socially constructed rational judgements to another that seem to offer a better account of material reality.

The evidence shows that there are multiple and equally valid interpretations of the truth, supported by different styles of reasoning. These different styles go beyond the attributes of 'rational' and 'non rational' judgements, showing that such labels are grounded in a taken for granted reality. There is also evidence that strategic change labelled as 'incremental' or 'revolutionary' are 'after the fact' social constructions that vary with the observer's perspective (see also 9.2.5). Significant strategic change may take place within a given social reality, without upsetting its fundamental nature, or an organisation may switch social realities although this is likely to be a more traumatic experience for those involved. Incremental change measured over centuries, such as experienced by BoS, may be labelled as significant or transformational when looked at over the whole of its history.

It seems likely, though not certain, that the social choice framework can explain variation between a broad range of organisations, and at different levels of focus. All three in this study exist in what appears to be a largely individualistic Anglo-American socio-economic setting, yet the three are sufficiently different to suggest that national culture does not blur differences. Even within the same industry it is possible that the same differences in social reality can be shown. For example, it is conceivable for BT, Britain's largest telecommunication services provider, to have a hierarchical profile in contrast to Timeplex's individualism. Business units within BT need not be homogeneous; some could be individualistic, while others - perhaps the research oriented units - be more egalitarian. The framework's explanatory power in some settings are much more unclear. For example, family owned businesses may be hierarchical, yet differentiated in different ways other than those used in this analysis. Also, whether the framework would throw light on organisations in different socio-economic settings, such as companies in Japan or Korea, is unknown.

These and other possible areas for research are noted in chapter 11. The main findings of this thesis are also discussed, as are the implications for management practice and teaching.

11
Conclusions

11.1 INTRODUCTION

The research presented in this thesis aims to further our understanding of the practice of strategy and how it engenders scope for innovation. In particular it has explored how practice shapes strategic choice, and how that shaping process determines the scope for innovation. The research design adopted was a phenomenological study of three organisations. This allowed me to compare different practitioners' understanding of strategy and innovation within their own organisation, and contrast these findings across the three different organisational settings. To maximise the opportunity for comparison and contrast, the organisations chosen for this study all regard innovation as critical to their continued development, but operate in broadly unrelated sectors: banking, telecommunications network management, and distance learning management education. Through in-depth interviews with practitioners in each organisation, I studied the different meanings they attribute to strategy and innovation; what they regard as their technology; how they organise work and interact with each other; how they choose between strategic options and examples of what they consider to be strategic; how they go about developing and implementing strategy; what they consider to be examples of innovation, and why; how they make sense of their competitive environment. Through attempting to understand practitioners' views on these issues and continuous reading on various topics - innovation, strategy, research methodology, sociology, social psychology - the initial research questions and my assumptions about the nature of strategy were challenged such that the five concerns raised in my 'thesis introduction' took on a new significance (see 1.1). This chapter assesses that change of perspective; it pulls together the main findings of the study, and reflects on the mainstream literature reviewed in chapter two; it also revisits the concerns raised in chapter one and discusses implications for practice and teaching.

11.2 DEVIATIONS FROM THE INITIAL INTENTIONS

This thesis started as a journey with a route map of research questions and directions to follow. The journey has deviated from the original route, taking unexpected turns and drawing on ideas not initially anticipated. In chapter 1 five topics reflecting my personal experience were outlined as the basis for the research questions for this thesis. As discussed in 3.5.1, these questions proved to be only a starting point. The most significant development that was not anticipated by the original research focus has been my engagement with the social constructivist perspective.

Three observations spring from this experience. First, that a literature review and research questions can never comprehensively define the research space. Remaining open, suspending judgement and interpretation, provides much scope for creating new contours within any previously defined area of research. Second, that the empirical evidence presented in this thesis is a construction shaped by the discussions between the researcher and staff of the researched organisations. Third, if a thesis represents a journey of discovery, then it seems reasonable to expect some change in researcher perspective over the journey. One may draw a crude parallel between the research process and the practice of strategy: whatever the strategic intent, innovative behaviour and novel artefacts often unexpectedly crystallise out of practice.

Revisiting the literature review after almost three years, was like being a visitor in a familiar yet foreign land (see ch. 2). Where now I see strategy practice bound up with a constructed social reality, one constituting the other, then I saw practitioners acting on a reality that was 'out there'; I regarded organisational culture as the lens through which practitioners see reality. Over the research period I have switched paradigms and this is reflected in the contrast between chapter 2 and chapters 7 to 10. One could argue that the empirical evidence spoke to the researcher, but doing so would deny Ludwik Fleck's (1979) observation and that of Pasteur (Remer, 1965) before him, that there must also be a readiness on the part of the

researcher to see evidence in new ways. My continued engagement with various literature, in parallel with the fieldwork, contributed to that readiness.

11.3 MAIN FINDINGS

This thesis offers a structured approach to making judgements about organisations and suggests why we should not look for universal prescriptions for the management of innovation. There is more to choice than rationalistic strategy metaphors acknowledge.

The study shows both an important similarity and differences in the practice of strategy. In all three organisations the practice of strategy is socially constructed by practitioners; practice is the embodiment of a 'taken for granted' and shared reality, a social reality; through practice practitioners reinforce and develop their social reality; they reinforce and develop their shared reality through creatively exercising their capabilities, and through their interpretation and expression of technology and technology-practice. In contrast, the study also shows that practitioners working together in one organisation may construct a different shared reality to practitioners of another organisation; each constructed reality is distinctive, discernible yet indeterminate. There seems to be a limited number of such constructed realities. Normal practice in each constructed reality is imbued with different interpretations of rationality, governance, preferred forms of economic transaction, attitudes to risk, and many other factors.

11.3.1 Realism or relativism?

This thesis presents a view of reality that is best described as constrained relativism. From the relativistic side there is no ultimate truth and all observation claims, including appeals to commonsense, are theory dependent. There is no ultimately best form of organisation or strategy that supports or gives rise to more innovative behaviour by practitioners. Similarly judgements about the effectiveness or appropriateness of strategic aims have meaning only in relation to a particular social reality. Technological change in higher education carries a

different sense of urgency and harbours different social and economic values than technological change in the banking or telecommunication sectors.

This relativism is constrained in various ways. Although practitioners construct their reality their choices are constrained by the material and social reality they construct. Firms develop novel products and services in anticipation of some unspecified opportunity, but their actions may influence aspects of their reality in unexpected ways. No matter what the innovator's intentions, potential customers may or may not buy the new product or service; environmental groups may object to any number of aspects of the innovative offering; competitors may successfully imitate the novel product; new competitors may emerge through unanticipated technological change, possibly making one's competitive advantage redundant.

Strategic choice is further constrained because the innovating organisation exists as part of a wider social reality of capitalist economics, where competition and the failure to innovate often leads to an organisation's demise; innovation is not an option but a necessity for survival. This constrained relativism is developmental: it is shaped through the 'invisible hand' of recipes and routines; the openness or looseness of knowledge bases and recipes; the heterogeneity of resources and capabilities across organisations, sectors, and whole economies.

11.3.2 The construction of social reality through strategy practice

Strategy practice is a continual process of practitioners interpreting and expressing meaning, and is the product of daily interactions among themselves and with customers, competitors, and other stakeholders (see ch. 8). These interactions are shaped by practitioners' everyday interpretation of a shared reality. In the language of social constructivism, practitioners construct their material and social environment through practice and discourse, a reality which they interpret as objectively real.

Practice is both stable, guided, and at the same time always provisional. It is guided through heritage, shared meaning, shared expectations of 'things to come', and the application of recipes of how to compete and co-operate. However, it also remains provisional through practitioners' political behaviour; differentiated assessments of situations and events; their construction of unanticipated anomalies. Practice constituted through the interaction of these socio-cognitive processes provides scope for innovative behaviour and novelty.

Innovation then is inherent to the construction of social reality. Further, practitioners reinforce and extend their shared reality through creatively exercising their capabilities (see 9.2). To some extent the expression of these capabilities is guided by recipes for success and 'taken for granted' routines, but there is more than rule following involved. The indeterminacy of recipes mean that practitioners are necessarily creative in interpreting their shared reality, such as deciding what constitutes an anomalous situation or event and how to deal with it, and are necessarily creative in exercising their capabilities in ways that seem meaningful to them. Similarly, the inseparability of facts and values and the interpretive flexibility of technology-practice means that although practitioners' choices are guided (by heritage, shared meaning, recipes), they are necessarily creative in how they interpret and express commercial opportunities, and in how they design competitive artefacts, processes, and services (see 9.3).

In presenting the management of strategy as discrete elements of analysis, formulation of choice, and implementation, and in seeing the organisation as adapting to its external environment, the mainstream literature on strategy fails to acknowledge that practice is less about sub-systems coherently locked together and more about the crystallisation of a range of interacting socio-cognitive processes. Treating political behaviour as an abhorrent by-product to be contained is to misunderstand its pervasiveness, and entanglement with shared meaning, heritage, and other factors, in shaping practice. Further, by conceiving of the knowledge generated from strategic analysis as being an approximation to some truth, these rationalistic metaphors fail, fundamentally, to acknowledge the subjectivity of knowledge, the inseparability of facts and values, and the interpretive flexibility of the technological

agenda (see 2.6). Although the mainstream literature on strategy recognises recipes, their meaning is located within Simon's 'bounded rationality' suggesting that practitioners operate with a simplified model of their world. Practitioners may operate with a simplified conception of their competitive world, but more than that, their conception is socially constructed; they selectively bracket and sequence situations and events from the morass of their everyday experiences, giving relevance and value to their constructions; recipe knowledge is the product of human subjectivity (see 9.2 and 9.4).

The heterogeneity among firms as highlighted by the evolutionary metaphor adds explanatory value to the social constructivist perspective because it reinforces the idea of differentiated knowledge between organisations, and their differing assessments of situations and events, without contradicting the conforming influence of industry recipes (see 2.6.4). However, the hegemony invested by the evolutionary metaphor in a Darwinian selection environment seems akin to a deterministic objective reality. Such a notion seems to grossly understate the deliberate behaviour behind the variety and frequency of socio-economic relations between organisations, for example the influence of local networks on knowledge flows and the co-development of novel artefacts and services. Such socio-economic networks shape the competitive environment.

The idea of a trajectory does capture the observable tendency for technologies to evolve in predictable directions, but this trajectory is not determined by the technology. Trajectories exist because practitioners collectively attach relevance and value (social and economic) to their knowledge base and its development in particular ways. That shared commitment crystallises as exemplars and heuristics for measuring performance and progress, and it is a wavering of that commitment in light of increasingly differentiated assessments of situations and events that undermine trajectories (see 9.4). Such wavering may result from the emergence of alternative exemplars, or an increasingly shared belief that the limits of the achievable are being reached. Such limits may be defined as a composite of the technically possible, the economically viable, and the socially desirable.

11.3.3 The inclusiveness of practice and social reality

Mintzberg suggests that strategy may be any combination of five 'Ps': plan, position, pattern, ploy, and perspective (see 2.2.2). These findings suggest that 'perspective' is a better description of practice than the other 'Ps'. The relationship between practice and social reality is inclusive rather than directional (see 7.2.3). Practice embodies shared beliefs and theories about how to compete and co-operate, and a rational post hoc reconstruction of an organisation's practice will often show a 'pattern'. At the same time that practitioners are reinforcing and extending their social reality through strategy practice, that reality imbues practice as socio-cognitive commitments shared by the membership (see chs. 8 and 10). Inclusiveness also comes from the subjectivity of knowledge and its distribution *as* and *within* socio-cognitive structures (9.2.2), and the inseparability of facts and values (9.3.5). The seamless web character attributed to sociotechnical systems further contributes to this inclusiveness by showing that organisational development depends on the interrelationship between artefacts, practice, heritage, and shared expectations among stakeholder institutions (see 2.6.2). For an example from the Bank of Scotland see 5.6.2.

The Bank of Scotland's everyday practice of pursuing efficiency gains reflects a shared belief among the Bank's managers that they are custodians of the Bank's heritage, its standing today, and its future direction. The Bank's behaviour is reinforced by its customers' expectation that it should exercise prudence, backed up by various regulatory mechanisms. Timeplex's individualist shared reality is articulated as managers and engineers' entrepreneurial and territorial practices. Timeplex competes in an environment where constant and noticeable technological change and entrepreneurial behaviour are expected by customers and competitors alike. The Open Business School's philosophy of open access and equal opportunity manifests itself as a collective sense of mission to provide higher education to the populace (especially the educationally disenfranchised), and the exercising among staff of a universal right to influence the Business School's strategy making.

In seeking to fit the organisation to its external environment, many mainstream strategy thinkers invoke the language of systems, machines, and organisms, with feedback learning loops, internal coherence of structures, and Lamarckian adaptation. These metaphors fail to recognise that learning does not involve tracking some real truth, rather the attachment of meaning and economic value to situations and events. Further, there are ambiguities, inconsistencies, and differentiated assessments of reality everywhere. As noted above, practitioners are necessarily creative in making sense of their relationships and their competitive environment (see 11.3.2). In seeking to apply order to all that is provisional about practice (ch. 8), or in applying categories to their technologies and capabilities (2.6.2), systems strategists are (unknowingly) engaging in the process of social construction. Through invoking a constellation of beliefs, recipes, shared meaning, a sense of identity, and economic value they attach to accomplishments and expectations, they are engaging in making practice and shared reality inclusive.

11.3.4 There are a limited number of discernible social realities

Social reality is not infinitely variable; there are a limited number of possibilities. It can be understood as the product of two variables: socially prescribed rules of behaviour, and how practitioners commit to work together. Although we may identify a limited number of possibilities, everyday reality is discernible, and at the same time, indeterminate. There may be discernible features, such as shared meaning, preferred forms of economic transaction and managerial control, attitudes to risk and uncertainty, but these are indicative not definitive. There are various reasons for this elusiveness. First, while an organisation may be characterised in terms of a particular form of everyday reality, there are others in the background, interacting with the dominant reality to provide variation and plasticity. For example, Timeplex's individualism is constrained by aspects of an hierarchical reality, and there are tensions of hierarchy and individualism in the Open Business School (see 10.4.1 and 10.4.3). Second, because of these tensions and the ambiguities and inconsistencies of inclusiveness practice and shared reality is not static but developmental. Managers at the

Bank believe that stewardship and prudence has always been the guiding principle of their predecessors, and over the centuries the quill pen and ledger have given way to the computer without upsetting that principle.

Third, a particular social reality may reflect, say, certain attitudes to risk and uncertainty, or styles of rationality, but the nature of the link between shared reality and the particular features of practice is not certain due to the ambiguity of the inclusive relationship and the developmental quality of practice and shared reality noted above. Two examples were found where the relationship between social reality and practice was found to differ from that expected: while Douglas would regard conspiracy as consistent with an egalitarian community, I found stronger evidence of this in the individualist reality of Timeplex (see 10.4.1). Similarly, Bloor does not regard an egalitarian society as supportive of diversity of world view, yet there is evidence to the contrary in the Open Business School (see 10.4.3). Fourth, building on the first three points, while the labelling of categories is an important aid to understanding, social reality is not defined simply by the notion of constituent features or categories that can be checked off inventory style. Practitioners' shared reality is maintained by the relevance and value they attach to a constellation of categories as a whole; they draw their identity from the interrelationship of categories, that are held together by consistencies and inconsistencies. Through the interrelationship of these categories, each shared reality gives rise to, and reflects, different kinds of strategy practice, and patterns of innovative behaviour. Some of these patterns have been discussed in 10.5 by way of differences in collective control, strategic rationality, strategic change, boundary management, and individual mobility.

Consider the implications for strategic change. The possibility of plural realities mean that the prevailing view that organisations normally experience incremental change interspersed with periodic revolutionary change needs some revision (see 10.5.4). Two kinds of upheaval seem possible. Organisations can transform themselves without appearing to leave their home reality. They may also leap from one reality to another but this is likely to be a much more traumatic experience for the stakeholders concerned. Evidence the difficulties surrounding

the privatisation of Britain's health service, rail franchise, and utilities. It also seems likely that although the social construction of practitioners' reality includes its elaboration, this elaboration does not provide incremental steps from one social reality to another. For this type of incremental change to happen practitioners would have to be only loosely connected to their social reality, but as previously noted practitioners routinely and largely unconsciously reinforce their social reality. It is indeed their source of identity.

Although the typology presented in chapter 10 and Harrison's 'organisation ideologies' do not share a common heritage, there is some overlap (see 7.2.2). For example his 'power' and 'temple' cultures have some features in common with the individualist and hierarchical social realities. Further, while social reality incorporates the creation and application of knowledge, Harrison's organisation ideologies do not. Harrison's explanation of his categories appear to be entirely based on common sense observations and impressionistic descriptions. Indeed there is something tautologous about his classification: organisations have these ideologies because of their beliefs and values, but where do these beliefs and values come from? In contrast the typology in chapter 10 shows how and why alternative social realities are distinctive: the interplay of social commitment and social control.

11.4 IMPLICATIONS FOR PRACTICE AND MANAGEMENT TEACHING

These findings carry implications for the 'personal encounters' in chapter one (1.1), and more broadly for practice and teaching. These encounters are those of a practitioner and it seems appropriate to frame the following discussion around them.

11.4.1 Constrained relativism

Practitioners experience their environment as objective, as having an ontological status independent of them, and subjectivity is viewed as a human frailty, a view that, although not stated, underpins all five personal concerns in chapter one. While I regarded the status of reality as an interesting philosophical issue, it seemed remote from the 'real' everyday

concerns of strategic management; a view that I imagine most practitioners share. This study shows this to be an overly simplistic view of the world. So much so that the analyses in chapters 7 to 10 stress the central interdependence of the subjective and the objective, because from the perspective of a practitioner (in contrast to a sociologist) the suggestion that reality is constructed in this way is far from obvious.

The implications for practice are profound. Practitioners need to be much more self reflexive about the status of their understanding of what constitutes a competitive environment; their relationship with it; and their relationship with each other. The implications for management teaching are no less profound, because it requires that teachers be willing and able to question the basis of the knowledge that they take for granted, and be able to develop this capability in their practitioner-students. The ability to recognise epistemological assumptions is important because as Knights argues teachers and students alike tend to internalise prescriptions for effective practice; prescriptions that invariably assume an objective reality (see 7.1.1).

Reflexive practice is important because while many organisations are successful, many more fail, and for similar reasons: practitioners impute technical rationality to their successes and failures (see 7.1.1). Practitioners are not aware that the reality they take for granted is not give but socially constructed. When they analyse their competitive environment using Porter's 'five forces' (1980) or analyse their internal resources using the Boston Matrix or Porter's 'value chain' (1985), or even when they use 'commonsense', practitioners are *at the same time* implementing a host of practical consequences that go with the, often tacit, intellectual frameworks, metaphors, and recipes of their shared reality. For example, when managers talk about pursuing an 'added value' strategy, they are probably drawing on the 'value chain' metaphor (this link having been internalised), with its discrete components of purchasing, production, marketing, and sales joined together like beads on a string. In this process a little value is added to the product at each stage as it passes through the sausage machine. Practitioners often translate the value chain into a list of operational processes, checking off against each item how their organisation adds value for the customer. Were they to analyse their resources and capabilities in terms of, say, a knowledge base with its socio-

cognitive structure and distribution of expertise they would generate a different understanding of how their organisation is adding value. Where practitioners are able to confront their epistemology of practice, they increase the scope for effective and innovative practice. By translating intellectual constructs into taken for granted recipes and problem solving grids (forcing data into boxes and producing checklists), practitioners empty these constructs of their looseness, ambiguity, and instability. Rather than being able to elaborate or transform their intellectual constructs, practitioners' thinking becomes imprisoned by the rationality and objectivity they invest in their models.

There are other areas where practitioners need to be able to identify their own recipes and suspend judgement rather than look for checklists. In seeking ways to be competitive practitioners draw on precedents and exemplars, for example successful competitors, and fast growing firms in other industries. More than trying to emulate successful organisations, practitioners might also study the failures. Further, they might try to analyse the socially constructed processes that constitute successful and unsuccessful organisations including: shared assumptions, socio-economic values, metaphors in use, rationality styles, attitudes to uncertainty, approaches to creativity, and preferred forms of governance. They should also look for competing interpretations of these other organisations' behaviour; juxtapose different thinking styles, and shared metaphors and exemplars of good and bad practice; and seek to understand how and why effective and innovative processes vary with different interpretations of good and bad competitive performance. Practitioners should develop an ability to be always ambivalent and enquiring about their successes and failures. Firms have R&D and market research functions. The foregoing suggests a place for a socio-cognitive researcher and *agent provocateur*; a facilitator-practitioner who is engaged in practice and at the same time facilitating ambivalent and enquiring behaviour among colleagues. Perhaps the 'knowledge managers' that are becoming fashionable could take this role. Rather than seeking to audit and produce an inventory of the firm's expertise, and more than trying to make explicit the tacit knowledge that exists within the organisation (valuable as this task is), the knowledge manager might engage colleagues in ways that help them to confront their epistemology of practice.

11.4.2 Accounting for personal encounters

My first, second, third, and fifth concerns in chapter one highlighted: the differentiated meaning of strategy; the existence of conflict, compromise and contradiction; resistance to heterogeneity within the organisation; the importance of politics and informal networks to strategy. These four concerns are grouped together because the analyses confirm the prevalence of these phenomena, and more importantly show that they are interrelated and an inherent part of the social construction of strategy practice. The stable yet provisional nature of practice suggests a range of factors that provide practitioners with both a stable experience and different assessments of situations and events (ch. 8). In addition, the subjectivity of knowledge and the interpretive flexibility of technology-practice creates the opportunity for differentiated meaning, contradiction, and political behaviour (ch. 9). The existence of plural realities within the organisation further contributes to the maintenance of these phenomena (ch. 10).

Chapter 8 does not amount to an exhaustive framework, but it does provide practitioners and teachers with a method for assessing how practitioners construct the practice of strategy, and for assessing their organisation's relationship with the 'external' environment. Importantly, these factors show that practitioners are not detached overseers of strategy. Whatever rational gloss practitioners put on strategy (2.2, 2.3, and 2.4), it is the interaction of stable and provisional socio-cognitive processes among practitioners that shapes practice. Rather than treating differences, contradictions, and resistance as dysfunctional, practitioners might better understand their own frustrations, their organisation's frailties and distinctive capabilities, and the critical role of their shared social context, by drawing on the ideas presented in chapters 7 to 10.

Part of my third concern was that practitioners, observers, and mainstream teaching on strategy imply or overstate the extent to which the process of strategy is rational, yet 'rules of thumb' and post hoc justification of outcomes seem commonplace. Practitioners do set goals (4.4.1, 5.4.1 and 6.4.1), but the evidence also supports Weick, MacKenzie and other writers

who suggest that rationality is imputed (9.4). Moreover, justifications are not randomly applied but form part of a collectively ordered flow of experiences (ch. 8), such ordered experiences coalescing in particular ways (ch. 10). The evidence suggests that asking whether goals drive, or reflect, outcomes is inappropriate because it seeks to establish a cause and effect link in an inclusive relationship between shared reality and practice. The imputation of intent is an unavoidable consequence of the on-going interaction between the subjective and objective, and further illustrates the need for practitioners to be much more critical in how they assess the relationship between their competitive performance and strategic intent.

My fourth concern was that practitioners assume the objectivity of their knowledge, and further that such knowledge seemed tacit and poorly understood. The evidence on exercising capabilities and interpreting technology-practice, supports the analyses of Bloor, Pinch and Bijker, and others who show that knowledge claims in science and technology are subjective, that facts and values are inseparable (ch. 9). Just as Collins has noted the centrality of tacit knowledge to scientific research, and Senker has noted its importance to innovation, this study finds tacit and taken for granted knowledge to be fundamental to the practice of strategy. In making strategic judgements of any kind (technological and commercial), practitioners should try to develop a sensitivity to the subjective dimension of those judgements. By recognising and remaining open to the subjective and taken for granted nature of their knowledge, practitioners increase their scope for conceiving of novel, useful, and more effective ways of configuring their resources and capabilities.

11.4.3 Designing social reality

These findings underline the profound difficulty of trying to design practice by manipulating social reality. As noted above and in 10.5, alternative social realities invoke and support different taken for granted strategy practices and patterns of innovative behaviour. For example, each social reality reflects distinctive and shared attitudes to how work should be organised, and what constitutes risk and rationality. These findings help explain my third concern about the insensitivity to heterogeneity within organisations, because they show that

'anything goes' is defined by the shared reality; once you internalise the rules you can be very creative.

Practitioners and consultants who try to evaluate the appropriateness of an organisation's social reality, say for being more innovative, risk making arbitrary judgements. The internal consultant's view is coloured to the extent that they share the same socio-cognitive commitments, and are mindful of the range of behaviour that the organisation sanctions. The outside consultant is no more 'objective'. Rather they bring their own recipes for success, and work to find, or put them, into the target organisation. The patchy success rate of ailing organisations seeking to turnaround their fortunes by changing their chief executive, further highlights the difficulty of remoulding a shared reality. This is not to suggest that leadership styles are an entity divorced from social reality. Consultative or authoritarian styles help to shape social reality, but equally an egalitarian social reality for example is likely to exert pressure for a consultative leadership style.

In seeking to develop innovative behaviour, artefacts, or work processes, practitioners might better appreciate the strategic consequences of their actions if they focus on technology-practice, more than the more narrow artefactual technology, as a unit of analysis because such an approach brings to the fore the interrelationship between artefacts, work organisation, shared assumptions and beliefs (9.3). They might find that they do not need to change what they have in order to enhance innovative behaviour, rather that their understanding of their existing assumptions, attitudes to uncertainty, ways of working, and creative resources and capabilities might be the inhibiting factor. Indeed without a better understanding of practice, strategic change is likely to remain hit and miss.

Practitioners need to recognise a strong interdependence between the environment and the organisation. Environments are patterned according to schemes imposed by organisations, often reflecting the same internal order or disorder. Organisations seeking to shape the environment in competition with others get a competitive environment. Those seeking an ordered environment get a regulated one.

11.5 FURTHER RESEARCH

The findings and ideas presented in chapters 7 to 10 invite further research. Existing forms of business process analysis rely heavily on an ontologically concrete competitive world. The findings here suggest a need for the development of appropriate management tools to help practitioners appreciate the extent to which their practice shapes and reflects social reality.

The prescription that practitioners should seek a 'fit' between their organisation and the environment, and the determinate metaphor, does not account for practice, but where such prescriptions are heeded and acted upon this action contributes to the evolving locus of competition. Once upon a time meeting customer needs was a source of advantage, now it is essential. Once in-house R&D was key for some industries, now some see the route to success as swinging to inter-organisational networks (Rothwell, 1992). These movements reflect social shaping processes and further highlights the need for forms of analysis that retain some scope for reflexive learning. There is a fundamental problem here in that where we better understand a social process, the action of exploiting that understanding causes that process to evaporate. Mindful of this phenomenon, there is a need to conceive of self-reflexive analytical approaches that remain sensitive to the evolving locus of competition, and the mutual elaboration and transformation of strategy practice and shared reality.

Further research is needed to test the robustness and applicability of the main findings, in other forms of organisation. For example The Health Service, public service agencies, government departments, the legal system, and organisations in other countries and cultural settings. Research in these areas may not only shed light on the nature of strategy practice in those organisations, but may also help the development of analytical ideas presented in chapters 7 to 10. In particular what other factors contribute to the stable yet provisional nature of strategy practice (ch. 8). What are the consequences of adding another dimension, such as 'rationality styles', to the group/grid framework in chapter 10? A more complex framework may highlight important variations of social reality and practice.

The nature of socio-cognitive schemes or collective thinking styles and their expression as practice needs further development. For example: there are questions about the validity of using the individual psychology as a metaphor for group processes. Also, how useful is it to talk of a collective consciousness? While the sociology of scientific knowledge provides much insight to the analysis, its combination with a study of the sociology of language may be equally fruitful in making sense of differentiated meaning. To this end can Wittgenstein's 'language games' and 'forms of life' be operationalised?

Related to the previous point on language is the role of metaphor and analogy. Schon (1963: 199) in his study of the role of metaphor in facilitating the emergence of novelty, suggests that more work is needed to understand the nature of the "accommodation" between an old theory and a new situation. He offers the notion of 'intimation', but this still smacks of the mystique that he was critical of in other theories. This thesis suggests that as a starting point the nature of that accommodation is socially constructed, but more research is needed here. For example, how does creativity and recipe knowledge combine to generate both new artefacts and metaphors?

The links between the alternative configurations of social reality and theories of economic transactions and rationality need more investigation and explanation. For example how would economic transaction models change if they accommodate social preferences? Any given social reality may not necessarily define, or reflect, a particular collection of factors, for example a particular form of rationality. The interrelationship between a constellation of factors seems equally important. How can this relational dimension be characterised?

Whipp and Clark (1986) observed the mutual shaping between the firm's capabilities and innovations, and the competitive structure of its sector. Further, many studies show that the firm shares a large part of its reality with others of its sector or industry (Grinyer and Spender, 1979; Huff, 1982; Child and Smith, 1990). While organisations within the sector share relationships and expertise (Fincham *et. al.,* 1994), they probably still have distinctive thinking styles. How do these organisational differences and similarities shape the sector, and

can we make sense of the different ways that individual organisations interpret and express industry recipes?

There are similar questions about the influence of national or wider socio-economic settings on organisational strategy practice. Much research has been done comparing decision making styles, for example distinguishing Japanese, European, and American firm behaviour as being culturally rooted (Ouchi, 1981). Whittington (1993) also cites a number of such studies. There are also various on-going government sponsored initiatives around the world - the British concern was noted in chapter one - to find ways of improving national innovative performance. There seems to be room for comparing these national programmes on several dimensions: to what extent they incorporate the role of broad cultural dimensions in shaping technological change, and how such change is reinforcing and elaborating cultures; factors considered important in designing these research programmes, and why; comparing the outcomes and recommendations of these programmes, asking why differences and similarities surface.

This thesis shows that in the pursuit of rational strategy practitioners working together invoke a shared reality; a reality that reflects and at the same time shapes what counts as right and wrong ways to co-operate and compete. This reality, and therefore practice, is stable yet remains provisional because of the subjectivity of knowledge. Having spent the last four years researching the nature of strategy, in particular the processes that shape choice and the scope for innovative behaviour, my understanding of the practice of strategy has been transformed. I have become deeply aware of the plasticity of practice, and its embodiment of a shared reality. More generally practitioners might enrich their own lives, and that of organisations, where they are willing and able to confront their own epistemology of practice.

APPENDICES

APPENDIX 1

SCHEDULE OF INTERVIEW QUESTIONS

Differentiated meaning

1 What do you understand by strategy?

2 What is your organisation's strategy?

3 What is your department's strategy?

4 What do you understand by innovation?

5 What, if any, is the relationship between strategy and innovation?

6 How do you go about understanding the future competitive environment?

7 How do you organise in anticipation of the future. What factors are taken into account: markets, technologies, expertise, socio-economic, etc.?

8 How do you try to keep open to the possibility of different futures?

9 How do you assess the potential for influencing the competitive environment?

10 Can you describe your strategy making processes? How intended v. how it seems.

11 How do you know that the strategic process is effective and reliable?

12 How do you see your competitors?

13 How do you view the innovation contribution/role/performance of other groups?

14 How do other groups view your innovation contribution/role/performance?

Paradoxes

15 How do you decide between spending on things which generate cash in the short-term and things which generate revenue over the long-term?

16 How do you choose between actions which lead to improvements in competitive performance and actions which lead to sustainable competitive advantage?

17 How do you balance predictability and flexibility, operational efficiency and non-routine initiatives?

Heuristics

18 Do you have manuals of standard operating procedures?

19 Do you follow any practices which are not covered by the written procedures?

20 What are the generally accepted ways of beating the competition in this business?

21 Describe any links between business strategy and technical strategy?

22 Do you conceive of different technologies according to any form of

strategic significance, eg., core, critical, enabling, strategic?

Knowledge creation

23 Are there specific times when you make a conscious decision to create new knowledge? When?, Why?

24 What do you understand by 'know-how' and 'expertise'?

25 What if any is the relationship between know-how and: (a) strategy?; (b) informal contacts?

26 How do you go about acquiring and organising new knowledge?

27 What is the expertise of this organisation?

28 How do you distinguish between different kinds of knowledge, such as strategic and operational, or restricted and 'need to know'?

29 If knowledge is a source of competitive advantage: (a) how do you know what you have?; (b) how do you decide that your current knowledge base is good for the long-term?

Informal networks

30 Describe your links with other departments and external bodies, such as suppliers, customers, research organisations, personal contacts? Formal/informal, frequency, meetings location, who meets whom, purpose served.

31 What is the corporate view of informal networks and contacts?

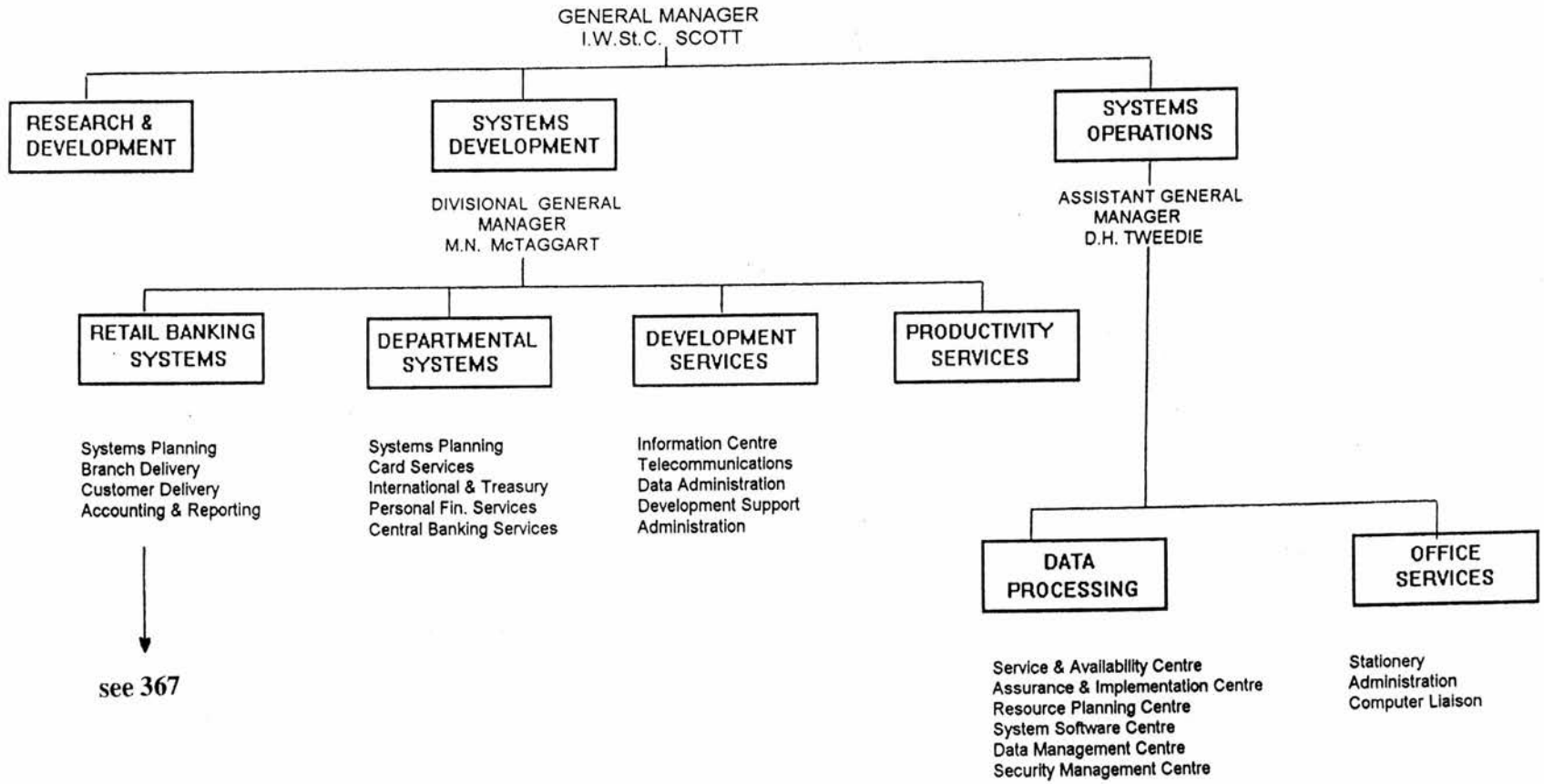
32 Who are the networkers here?

33 What do you think these networkers achieve (a) for the organisation, (b) for themselves?

BANK OF SCOTLAND

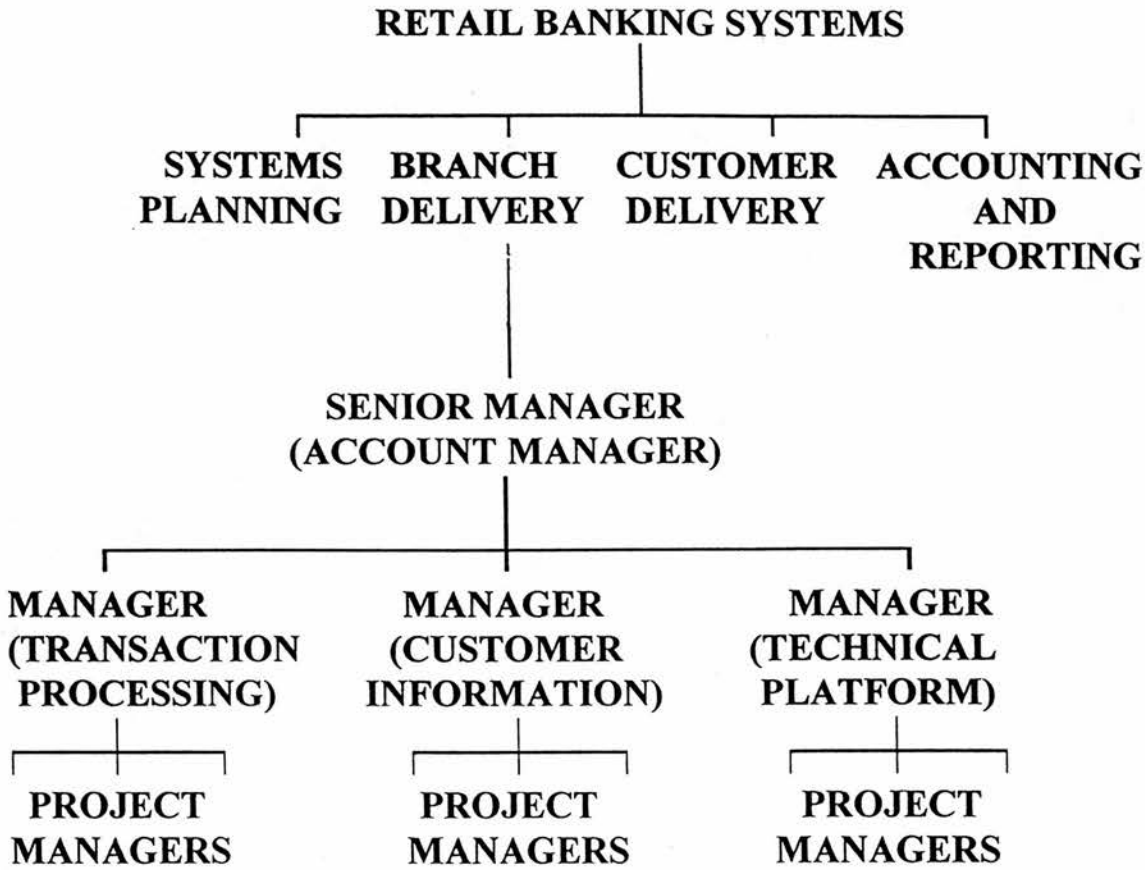
Appendix 2

MANAGEMENT SERVICES DIVISION STRUCTURE



Source: Bank of Scotland 'Fact Sheet 1' (December, 1989)

BANK OF SCOTLAND



Source: Presentation by Eileen Miller of Bank of Scotland at Edinburgh University Management School April 21, 1994

BANK OF SCOTLAND

PROJECT LIFE CYCLE

PROJECT INVESTIGATION REQUEST

- RAISED BY THE BUSINESS AREA
- PROJECT ASSIGNED TO THE RELEVANT ACCOUNT MANAGER

PRELIMINARY ASSESSMENT

- SCOPES THE PROJECT
- INDICATES COSTS OF THE PROJECT
- COVERS SOFTWARE, HARDWARE AND ANY THIRD PARTY INVOLVEMENT
- BUSINESS AREA AUTHORISES PROCEEDING TO NEXT STAGE

Source: Presentation by Eileen Miller of Bank of Scotland at Edinburgh University Management School April 21, 1994

PROJECT LIFE CYCLE

PROJECT CHANGE REQUEST

- BUSINESS AREA AUTHORISES CHANGES TO THE AGREED SPECIFICATION
- ALSO COVERS REVISIONS OF ESTIMATE

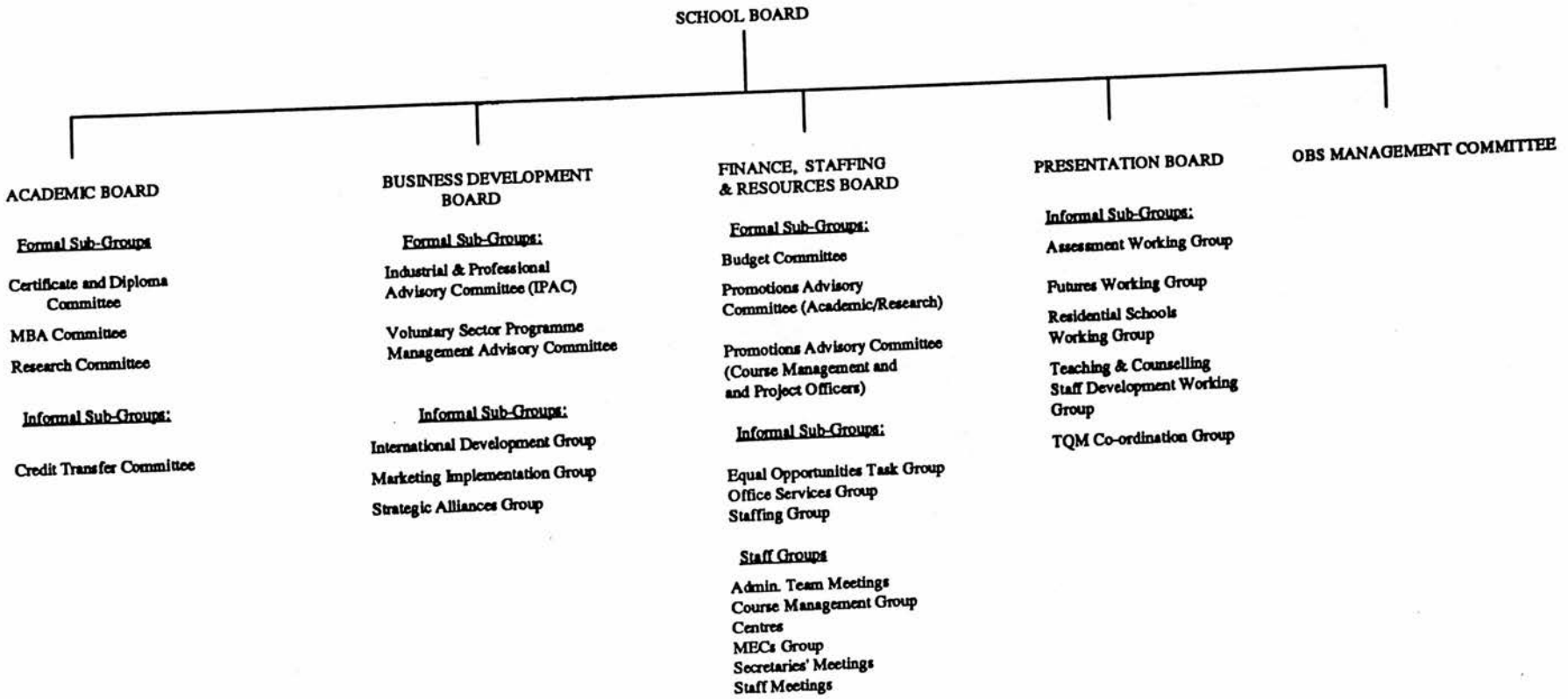
PROJECT WRITE-OFF

- NOTIFIES BUSINESS AREA OF PROJECT COMPLETION

PROJECT MANAGEMENT TOOLS

- RESOURCE ALLOCATION
- TIME RECORDING
- MANAGEMENT REPORTING TO ACCOUNT MANAGERS AND BUSINESS AREAS

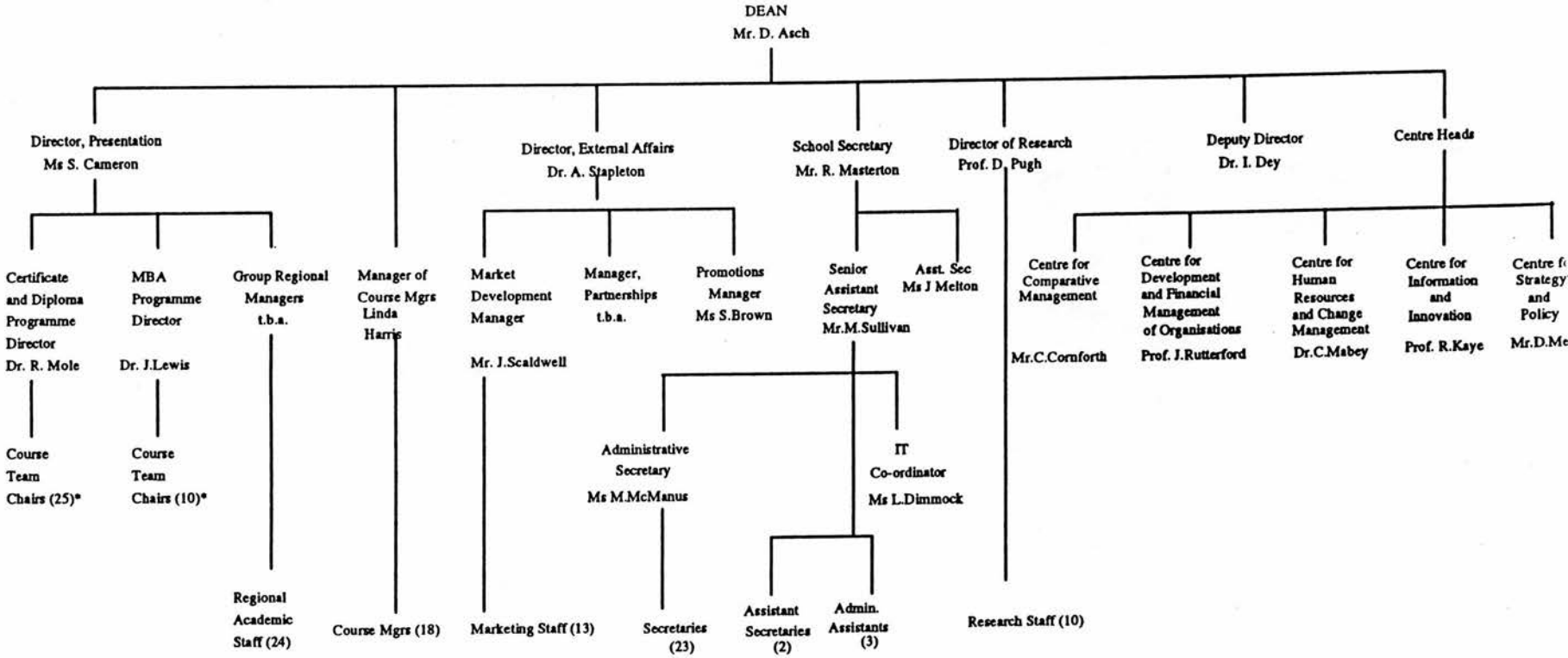
OBS COMMITTEE STRUCTURE



Source: Given by David Asch of the Open Business School, March 1994

Appendix 5

OBS MANAGEMENT STRUCTURE



* *Course Team Chairs can be Central Academic Staff or Regional Academic Staff.*
CTCs report to Programme Directors in terms of the project management of their courses, but are not line-managed by them.

Source: Given by David Asch of the Open Business School, March 1994

Open University Mission Statement

The Open University is:

- ***open as to people*** and will play a leading role in the transition to mass higher education by serving an increasingly large and diverse student body;
- ***open as to places*** and will contribute to a widening of educational opportunities by making its programmes, courses and services available throughout the UK and more widely in Europe and the world;
- ***open as to methods*** and will use distance-teaching methods and new learning technologies and teaching techniques to serve home-based and work-based students;
- ***open as to ideas*** and will be a vibrant academic community dedicated to the expansion, refinement and sharing of knowledge.

The University's mission will be achieved by:

- the operation of an open entry policy in which there are no impediments to access and every assistance is given to students' progress;
- the provision of open-learning courses of outstanding quality which satisfy the lifelong learning needs of adult students;
- the development of local provision, centrally supported, throughout the EC and beyond;
- the advancement and dissemination of knowledge through the pursuit of scholarship and research;
- the promotion of OU teaching materials and the sharing of expertise in systems and technologies for distance education throughout the world;
- the development, with other national and international bodies, of frameworks of education and training that effectively meet the needs of students and the community at large.

The University also identified a number of priorities for development over the period for 1993-1997 and, again, these are established below as they have a bearing on some of the priorities within the School.

1 Expansion

To increase numbers of students on existing courses where places are fully financed, and particularly, in areas of high demand.

Source: 'School of Management School Plan 1994-98' (OBS)

2 **Efficiency**
To improve organizational efficiency and reduce unit costs annually while maintaining quality.

3 **Resilience**
To increase entrepreneurial and net income and to build up reserves.

4 **Quality**
To improve the quality of students' learning experience, and to improve quality assurance processes.

5 **Research**
To review the University's research policy and strengthen research activity.

6 **Admission and Retention**
To broaden access, improve the preparedness of new students for OU study and increase the retention of students once admitted.

7 **Curriculum Enhancement**
To development additional courses and programmes in existing and new subject areas of high demand.

8 **Qualifications**
To introduce new assessment and accreditation arrangements that are compatible with developing national systems.

To support the mission outlined above and the priorities for development, the Plans for Change document outlined a set of new directions which recognise that, in addition to priority setting, the University as a whole needed to re-examine its working practices and start to initiate the organization-wide changes that will enable staff at all levels to play a full part in the achievement of the University's strategic objectives. These are set out below and are supported by a University-wide programme whereby information is shared in a variety of ways in order to raise the awareness of individuals and to develop appropriate staff development activities to support the new directions.

- **From Long to Short Response Times**
To improve timeliness and responsiveness in key academic, operational and administrative processes in order to improve the quality of service and to adapt to changing circumstances.

- **From Complexity to Simplicity**
To simplify the University's operations and seek conformity to agreed standard models in order to reap economies of scale and improve efficiency.

- **From Provider-led to Customer-centred Provision**
To understand, define and act to meet the needs and expectations of all customers (students, clients, etc.) and to assess performance in relation to customers' satisfaction.

- **From an Expenditure to an Income Culture**
  To recognise that the University now has a greater ability than hitherto to determine its own income and that all units and individuals have the potential to contribute to the generation of net income to sustain and enhance current activities and support new developments.

- **From Centralism to Subsidiary**
  To devolve greater executive and managerial authority to the carious loci of activity within the University whenever it will improve the quality of decision-making and the effectiveness of local action.

- **From Quality Control to Quality Assurance**
  To place greater reliance on quality assurance processes as a means of empowering individuals and reducing management overheads while making explicit quality standards and objectives.

School of Management Mission Statement

'To be the leading UK business school in terms of improving the quality of management, by building on the Open University's recognised excellence in distance teaching by:

- Providing high quality management education and development experiences to large numbers of managers;

- Providing high quality student and sponsor support;

- Advancing the body of knowledge about management by research and scholarship;

- Creating an environment in which all staff are valued, developed and adequately resourced.'

Source: The Open University

'Plans for Change' leaflet, 1993

PRIORITIES FOR DEVELOPMENT 1993-1997

1 EXPANSION

To increase numbers of students on existing courses where places are fully financed, and particularly in areas of high demand.

2 EFFICIENCY

To improve organizational efficiency and reduce unit costs annually while maintaining quality.

3 RESILIENCE

To increase entrepreneurial and net income and to build up reserves.

4 QUALITY

To improve the quality of students' learning experience, and to improve quality assurance processes.

5 RESEARCH

To review the University's research policy and strengthen research activity.

6 ADMISSION AND RETENTION

To broaden access, improve the preparedness of new students for OU study and increase the retention of students once admitted.

7 CURRICULUM ENHANCEMENT

To develop additional courses and programmes in existing and new subject areas of high demand.

8 QUALIFICATIONS

To introduce new assessment and accreditation arrangements that are compatible with developing national systems.

These rank-ordered priorities are intended to guide everyone in the construction of development plans, the allocation of resources and the determination of the balance between activities. Rank-ordering at this level, has its limits: it can provide only broad guidance. In practice there are links between the items above, and development in parallel will often be necessary as long as resources are available.

The first three priorities should provide the resources necessary to achieve the academic objectives set out in priorities 4 to 8.

NEW DIRECTIONS 1993-1997

The OU needs not only to set its priorities but also to re-examine its working practices and to initiate the organization-wide changes that will enable all staff to play a full part in the achievement of the University's strategic objectives. The following brief statements outline some important dimensions, and for each one give the direction.

❑ ***FROM LONG TO SHORT RESPONSE TIMES***

To improve timeliness and responsiveness in key academic, operational and administrative processes in order to improve the quality of service and to adapt to changing circumstances.

❑ ***FROM COMPLEXITY TO SIMPLICITY***

To simplify the University's operations and seek conformity to agreed standard models in order to reap economies of scale and improve efficiency.

❑ ***FROM PROVIDER-LED TO CUSTOMER-CENTRED PROVISION***

To understand, define and act to meet the needs and expectations of all customers (students, clients etc.) and to assess performance in relation to customers' satisfaction.

❑ ***FROM AN EXPENDITURE TO AN INCOME CULTURE***

To recognize that the University now has a greater ability than hitherto to determine its own income and that all units and individuals have the potential to contribute to the generation of net income to sustain and enhance current activities and support new developments.

❑ ***FROM CENTRALISM TO SUBSIDIARITY***

To devolve greater executive and managerial authority to the various loci of activity within the University whenever it will improve the quality of decision-making and the effectiveness of local action.

❑ ***FROM QUALITY CONTROL TO QUALITY ASSURANCE***

To place greater reliance on quality assurance processes as a means of empowering individuals and reducing management overheads while making explicit quality standards and objectives.

The full benefit of these changes of approach will be achieved through a process of awareness-raising, staff development and management action at institutional and unit level in which all staff have an opportunity to participate. Many of these new directions overlap or interact and units will need to determine whether they intend to address them separately or collectively.

The Open University

PLANS FOR CHANGE

VISION

The Open University's ideals and impact have captured the imagination of the twentieth-century world. Its ideas and innovations will now lead higher education into the twenty-first century. Academic vitality and quality teaching will harness evolving information technology to provide convenient and cost-effective courses that will empower an increasing diversity of people to lead fuller lives.

MISSION

The Open University is :

- ***open as to people*** and will play a leading role in the transition to mass higher education by serving an increasingly large and diverse student body;
- ***open as to places*** and will contribute to a widening of educational opportunities by making its programmes, courses and services available throughout the UK and more widely in Europe and the world;
- ***open as to methods*** and will use distance-teaching methods and new learning technologies and teaching techniques to serve home-based and work-based students;
- ***open as to ideas*** and will be a vibrant academic community dedicated to the expansion, refinement and sharing of knowledge.

The University's mission will be achieved by :

- the operation of an open entry policy in which there are no impediments to access and every assistance is given to students' progress;
- the provision of open-learning courses of outstanding quality which satisfy the lifelong learning needs of adult students;
- the development of local provision, centrally supported, throughout the EC and beyond;
- the advancement and dissemination of knowledge through the pursuit of scholarship and research;
- the promotion of OU teaching materials and the sharing of expertise in systems and technologies for distance education throughout the world;
- the development with other national and international bodies of frameworks of education and training that effectively meet the needs of students and the community at large.

STRATEGIC AIMS

The principal aims of the University are as follows:

STUDENTS

1 To play a leading role in the expansion of higher and continuing education in the UK and of English-language distance teaching in Europe.

2 To increase access to and successful participation in higher and continuing education, particularly among those who have traditionally been under-represented.

COURSES

3 To develop a wide-ranging, high-quality, multimedia, open-learning curriculum, designed to meet academic and vocational needs as fully as possible.

4 To operate at the forefront of educational and technological developments relevant to large-scale distance education.

5 To provide students with teaching and assessment that is appropriate to the course, responsive to their needs, and of recognized quality.

6 To offer academically, professionally and vocationally recognized awards that correspond to other recognized systems of assessment, certification and records of achievement.

RESEARCH AND SCHOLARSHIP

7 To make a positive and vigorous contribution to academic research and scholarship both nationally and internationally.

INTERNATIONAL ROLES

8 To increase world-wide access to education and training opportunities through the promotion of the Open University's open and distance-learning materials and expertise.

The underlying objectives in relation to staff and resources are as follows:

STAFF

1 To ensure that the University is staffed at the level appropriate to support the aims and goals in this Plan, with staff who are proficient, appropriately qualified and well motivated.

2 To provide staff with the conditions necessary to fulfil and develop their roles in the University, and to treat them solely on their merits without reference to any irrelevant distinction.

ACCOMMODATION AND EQUIPMENT

3 To provide and manage the land, buildings and equipment required to support the strategic aims and goals in the most cost-effective manner and to protect and enhance the value of the estate.

INFORMATION TECHNOLOGY AND SERVICES

4 To develop the University's management information and information technology systems in ways that support the strategic aims and goals and help to improve the efficiency and effectiveness of the University.

PLANNING, FUNDING AND MANAGEMENT

5 To protect, develop and broaden the University's funding base so as to achieve the strategic aims and goals.

6 To manage resources effectively and to increase the University's efficiency.

Source: The Economist May 20, 1995: 129

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